



SEQUENCE LISTING

<110> Ruvkun, Gary
Ogg, Scott

<120> THERAPEUTIC AND DIAGNOSTIC TOOLS FOR
IMPAIRED GLUCOSE TOLERANCE CONDITIONS

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<140> 09/205,658

<141> 1998-12-03

<150> 08/857,076

<151> 1997-05-15

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<151> 1997-07-07

<150> US98/10080

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 His Leu Ile Glu Asp Asn Glu His His Pro Leu Val
 1715 1720

<210> 13
 <211> 139
 <212> PRT
 <213> Caenorhabditis elegans

<400> 13
 Thr Ser Gly Ser Gly Met Gly Pro Thr Thr Leu His Lys Leu Thr Ile
 1 5 10 15
 Gly Gly Gln Ile Arg Leu Thr Gly Arg Val Gly Ser Gly Arg Phe Gly
 20 25 30
 Asn Val Ser Arg Gly Asp Tyr Arg Gly Glu Ala Val Ala Val Lys Val
 35 40 45
 Phe Asn Ala Leu Asp Glu Pro Ala Phe His Lys Glu Thr Glu Ile Phe
 50 55 60
 Glu Thr Arg Met Leu Arg His Pro Asn Val Leu Arg Tyr Ile Gly Ser
 65 70 75 80
 Asp Arg Val Asp Thr Gly Phe Val Thr Glu Leu Trp Leu Val Thr Glu
 85 90 95
 Tyr His Pro Ser Gly Ser Leu His Asp Phe Leu Leu Glu Asn Thr Val
 100 105 110
 Asn Ile Glu Thr Tyr Tyr Asn Leu Met Arg Ser Thr Ala Ser Gly Leu
 115 120 125
 Ala Phe Leu His Asn Gln Ile Gly Gly Ser Lys
 130 135

<210> 14
 <211> 62
 <212> PRT
 <213> Caenorhabditis elegans

<400> 14
 Glu Asp Ala Ala Ser Asp Ile Ile Ala Asn Glu Asn Tyr Lys Cys Gly
 1 5 10 15
 Thr Val Arg Tyr Leu Ala Pro Glu Ile Leu Asn Ser Thr Met Gln Phe
 20 25 30
 Thr Val Phe Glu Ser Tyr Gln Cys Ala Asp Val Tyr Ser Phe Ser Leu
 35 40 45
 Val Met Trp Glu Thr Leu Cys Arg Cys Glu Asp Gly Asp Val

50

55

60

<210> 15

<211> 31

<212> PRT

<213> Caenorhabditis elegans

<400> 15

Lys	Pro	Ala	Met	Ala	His	Arg	Asp	Ile	Lys	Ser	Lys	Asn	Ile	Met	Val
1				5					10					15	
Lys	Asn	Asp	Leu	Thr	Cys	Ala	Ile	Gly	Asp	Leu	Gly	Leu	Ser	Leu	
			20					25					30		

<210> 16

<211> 72

<212> PRT

<213> Caenorhabditis elegans

<400> 16

Ile	Pro	Tyr	Ile	Glu	Trp	Thr	Asp	Arg	Asp	Pro	Gln	Asp	Ala	Gln	Met
1				5					10					15	
Phe	Asp	Val	Val	Cys	Thr	Arg	Arg	Leu	Arg	Pro	Thr	Glu	Asn	Pro	Leu
			20					25					30		
Trp	Lys	Asp	His	Pro	Glu	Met	Lys	His	Ile	Met	Glu	Ile	Ile	Lys	Thr
		35					40					45			
Cys	Trp	Asn	Gly	Asn	Pro	Ser	Ala	Arg	Phe	Thr	Ser	Tyr	Ile	Cys	Arg
	50					55					60				
Lys	Arg	Met	Asp	Glu	Arg	Gln	Gln								
65						70									

<210> 17

<211> 150

<212> PRT

<213> Caenorhabditis elegans

<400> 17

Tyr	Phe	Glu	Ser	Val	Asp	Arg	Phe	Leu	Tyr	Ser	Cys	Val	Gly	Tyr	Ser
1				5					10					15	
Val	Ala	Thr	Tyr	Ile	Met	Gly	Ile	Lys	Asp	Arg	His	Ser	Asp	Asn	Leu
			20					25					30		
Met	Leu	Thr	Glu	Asp	Gly	Lys	Tyr	Val	His	Ile	Asp	Phe	Gly	His	Ile
		35					40					45			
Leu	Gly	His	Gly	Lys	Thr	Lys	Leu	Gly	Ile	Gln	Arg	Asp	Arg	Gln	Pro
	50					55				60					
Phe	Ile	Leu	Thr	Glu	His	Phe	Met	Thr	Val	Ile	Arg	Ser	Gly	Lys	Ser
65					70				75					80	
Val	Asp	Gly	Asn	Ser	His	Glu	Leu	Gln	Lys	Phe	Lys	Thr	Leu	Cys	Val
			85						90					95	
Glu	Ala	Tyr	Glu	Val	Met	Trp	Asn	Asn	Arg	Asp	Leu	Phe	Val	Ser	Leu
			100					105					110		
Phe	Thr	Leu	Met	Leu	Gly	Met	Glu	Leu	Pro	Glu	Leu	Ser	Thr	Lys	Ala

115	120	125
Asp Leu Asp His Leu Lys Lys Thr Leu Phe Cys Asn Gly Glu Ser Lys		
130	135	140
Glu Glu Ala Arg Lys Phe		
145	150	

<210> 18
 <211> 113
 <212> PRT
 <213> Caenorhabditis elegans

<400> 18

Ser Pro Leu Asp Pro Val Tyr Lys Leu Gly Glu Met Ile Ile Asp Lys		
1	5	10 15
Ala Ile Val Leu Gly Ser Ala Lys Arg Pro Leu Met Leu His Trp Lys		
20	25	30
Asn Lys Asn Pro Lys Ser Asp Leu His Leu Pro Phe Cys Ala Met Ile		
35	40	45
Phe Lys Asn Gly Asp Asp Leu Arg Gln Asp Met Leu Val Leu Gln Val		
50	55	60
Leu Glu Val Met Asp Asn Ile Trp Lys Ala Ala Asn Ile Asp Cys Cys		
65	70	75 80
Leu Asn Pro Tyr Ala Val Leu Pro Met Gly Glu Met Ile Gly Ile Ile		
85	90	95
Glu Val Val Pro Asn Cys Lys Thr Ile Phe Glu Ile Gln Val Gly Thr		
100	105	110

Gly

<210> 19
 <211> 106
 <212> PRT
 <213> Caenorhabditis elegans

<400> 19

Leu Ala Phe Val Trp Thr Asp Arg Glu Asn Phe Ser Glu Leu Tyr Val		
1	5	10 15
Met Leu Glu Lys Trp Lys Pro Pro Ser Val Ala Ala Ala Leu Thr Leu		
20	25	30
Leu Gly Lys Arg Cys Thr Asp Arg Val Ile Arg Lys Phe Ala Val Glu		
35	40	45
Lys Leu Asn Glu Gln Leu Ser Pro Val Thr Phe His Leu Phe Ile Leu		
50	55	60
Pro Leu Ile Gln Ala Leu Lys Tyr Glu Pro Arg Ala Gln Ser Glu Val		
65	70	75 80
Gly Met Met Leu Leu Thr Arg Ala Leu Cys Asp Tyr Arg Ile Gly His		
85	90	95
Arg Leu Phe Trp Leu Leu Arg Ala Glu Ile		
100	105	

<210> 20

<211> 139
 <212> PRT
 <213> Caenorhabditis elegans

<400> 20
 Glu Tyr Trp Ile Val Thr Glu Phe His Glu Arg Leu Ser Leu Tyr Glu
 1 5 10 15
 Leu Leu Lys Asn Asn Val Ile Ser Ile Thr Ser Ala Asn Arg Ile Ile
 20 25 30
 Met Ser Met Ile Asp Gly Leu Gln Phe Leu His Asp Asp Arg Pro Tyr
 35 40 45
 Phe Phe Gly His Pro Lys Lys Pro Ile Ile His Arg Asp Ile Lys Ser
 50 55 60
 Lys Asn Ile Leu Val Lys Ser Asp Met Thr Thr Cys Ile Ala Asp Phe
 65 70 75 80
 Gly Leu Ala Arg Ile Tyr Ser Tyr Asp Ile Glu Gln Ser Asp Leu Leu
 85 90 95
 Gly Gln Val Gly Thr Lys Arg Tyr Met Ser Pro Glu Met Leu Glu Gly
 100 105 110
 Ala Thr Glu Phe Thr Pro Thr Ala Phe Lys Ala Met Asp Val Tyr Ser
 115 120 125
 Met Gly Leu Val Met Trp Glu Val Ile Ser Arg
 130 135

<210> 21
 <211> 61
 <212> PRT
 <213> Caenorhabditis elegans

<400> 21
 Ile Gly Phe Asp Pro Thr Ile Gly Arg Met Arg Asn Tyr Val Val Ser
 1 5 10 15
 Lys Lys Glu Arg Pro Gln Trp Arg Asp Glu Ile Ile Lys His Glu Tyr
 20 25 30
 Met Ser Leu Leu Lys Lys Val Thr Glu Glu Met Trp Asp Pro Glu Ala
 35 40 45
 Cys Ala Arg Ile Thr Ala Gly Cys Ala Phe Ala Arg Val
 50 55 60

<210> 22
 <211> 20
 <212> PRT
 <213> Caenorhabditis elegans

<400> 22
 Pro Ile Thr Asp Phe Gln Leu Ile Ser Lys Gly Arg Phe Gly Lys Val
 1 5 10 15
 Phe Lys Ala Gln
 20

<210> 23

<211> 163
 <212> PRT
 <213> Caenorhabditis elegans

<400> 23

Thr	Asp	Ser	Glu	Thr	Arg	Ser	Arg	Phe	Ser	Leu	Gly	Trp	Tyr	Asn	Asn
1				5					10					15	
Pro	Asn	Arg	Ser	Pro	Gln	Thr	Ala	Glu	Val	Arg	Gly	Leu	Ile	Gly	Lys
			20				25						30		
Gly	Val	Arg	Phe	Tyr	Leu	Leu	Ala	Gly	Glu	Val	Tyr	Val	Glu	Asn	Leu
			35				40					45			
Cys	Asn	Ile	Pro	Val	Phe	Val	Gln	Ser	Ile	Gly	Ala	Asn	Met	Lys	Asn
	50					55					60				
Gly	Phe	Gln	Leu	Asn	Thr	Val	Ser	Lys	Leu	Pro	Pro	Thr	Gly	Thr	Met
65					70					75					80
Lys	Val	Phe	Asp	Met	Arg	Leu	Phe	Ser	Lys	Gln	Leu	Arg	Thr	Ala	Ala
				85					90					95	
Glu	Lys	Thr	Tyr	Gln	Asp	Val	Tyr	Cys	Leu	Ser	Arg	Met	Cys	Thr	Val
			100					105					110		
Arg	Val	Ser	Phe	Cys	Lys	Gly	Trp	Gly	Glu	His	Tyr	Arg	Arg	Ser	Thr
			115				120					125			
Val	Leu	Arg	Ser	Pro	Val	Trp	Phe	Gln	Ala	His	Leu	Asn	Asn	Pro	Met
	130					135					140				
His	Trp	Val	Asp	Ser	Val	Leu	Thr	Cys	Met	Gly	Ala	Pro	Pro	Arg	Ile
145					150					155					160
Cys	Ser	Ser													

<210> 24
 <211> 44
 <212> PRT
 <213> Caenorhabditis elegans

<400> 24

Arg	Ala	Phe	Arg	Phe	Pro	Val	Ile	Arg	Tyr	Glu	Ser	Gln	Val	Lys	Ser
1				5					10					15	
Ile	Leu	Thr	Cys	Arg	His	Ala	Phe	Asn	Ser	His	Ser	Arg	Asn	Val	Cys
			20					25					30		
Leu	Asn	Pro	Tyr	His	Tyr	Arg	Trp	Val	Glu	Leu	Pro				
		35					40								

<210> 25
 <211> 38
 <212> PRT
 <213> Caenorhabditis elegans

<400> 25

Val	Glu	Tyr	Glu	Glu	Ser	Pro	Ser	Trp	Leu	Lys	Leu	Ile	Tyr	Tyr	Glu
1				5					10					15	
Glu	Gly	Thr	Met	Ile	Gly	Glu	Lys	Ala	Asp	Val	Glu	Gly	His	His	Cys
			20					25					30		

Leu Ile Asp Gly Phe Thr
35

<210> 26
<211> 60
<212> PRT
<213> Caenorhabditis elegans

<400> 26
Asn Leu Ala Glu Thr Gly His Ser Lys Ile Met Arg Ala Ala His Lys
1 5 10 15
Val Ser Asn Pro Glu Ile Gly Tyr Cys Cys His Pro Thr Glu Tyr Asp
20 25 30
Tyr Ile Lys Leu Ile Tyr Val Asn Arg Asp Gly Arg Val Ser Ile Ala
35 40 45
Asn Val Asn Gly Met Ile Ala Lys Lys Cys Gly Cys
50 55 60

<210> 27
<211> 20
<212> PRT
<213> Caenorhabditis elegans

<400> 27
Asp Trp Ile Val Ala Pro Pro Arg Tyr Asn Ala Tyr Met Cys Arg Gly
1 5 10 15
Asp Cys His Tyr
20

<210> 28
<211> 43
<212> PRT
<213> Caenorhabditis elegans

<400> 28
Val Cys Asn Ala Glu Ala Gln Ser Lys Gly Cys Cys Leu Tyr Asp Leu
1 5 10 15
Glu Ile Glu Phe Glu Lys Ile Gly Trp Asp Trp Ile Val Ala Pro Pro
20 25 30
Arg Tyr Asn Ala Tyr Met Cys Arg Gly Asp Cys
35 40

<210> 29
<211> 70
<212> PRT
<213> Caenorhabditis elegans

<400> 29
Asp Cys His Tyr Asn Ala His His Phe Asn Leu Ala Glu Thr Gly His
1 5 10 15
Ser Lys Ile Met Arg Ala Ala His Lys Val Ser Asn Pro Glu Ile Gly

20 25 30
 Tyr Cys Cys His Pro Thr Glu Tyr Asp Tyr Ile Lys Leu Ile Tyr Val
 35 40 45
 Asn Arg Asp Gly Arg Val Ser Ile Ala Asn Val Asn Gly Met Ile Ala
 50 55 60
 Lys Lys Cys Gly Cys Ser
 65 70

<210> 30
 <211> 35
 <212> PRT
 <213> Caenorhabditis elegans

<400> 30
 Cys Cys Leu Tyr Asp Leu Glu Ile Glu Phe Glu Lys Ile Gly Trp Asp
 1 5 10 15
 Trp Ile Val Ala Pro Pro Arg Tyr Asn Ala Tyr Met Cys Arg Gly Asp
 20 25 30
 Cys His Tyr
 35

<210> 31
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Degenerate probe

<221> misc_feature
 <222> (1)...(23)
 <223> n = A,T,C or G

<400> 31
 ggntgggayt rnrtnrtngc ncc

23

<210> 32
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Degenerate probe

<221> misc_feature
 <222> (1)...(18)
 <223> n = A,T,C or G

<400> 32
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18

<210> 33
 <211> 127
 <212> PRT
 <213> Caenorhabditis elegans

<400> 33
 Lys Phe His Glu Trp Ala Ala Gln Ile Cys Asp Gly Met Ala Tyr Leu
 1 5 10 15
 Glu Ser Leu Lys Phe Cys His Arg Asp Leu Ala Ala Arg Asn Cys Met
 20 25 30
 Ile Asn Arg Asp Glu Thr Val Lys Ile Gly Asp Phe Gly Met Ala Arg
 35 40 45
 Asp Leu Phe Tyr His Asp Tyr Tyr Lys Pro Ser Gly Lys Arg Met Met
 50 55 60
 Pro Val Arg Trp Met Ser Pro Glu Ser Leu Lys Asp Gly Lys Phe Asp
 65 70 75 80
 Ser Lys Ser Asp Val Trp Ser Phe Gly Val Val Leu Tyr Glu Met Val
 85 90 95
 Thr Leu Gly Ala Gln Pro Tyr Ile Gly Leu Ser Asn Asp Glu Val Leu
 100 105 110
 Asn Tyr Ile Gly Met Ala Arg Lys Val Ile Lys Lys Pro Glu Cys
 115 120 125

<210> 34
 <211> 131
 <212> PRT
 <213> Caenorhabditis elegans

<400> 34
 Asn Thr Thr Cys Gln Lys Ser Cys Ala Tyr Asp Arg Leu Leu Pro Thr
 1 5 10 15
 Lys Glu Ile Gly Pro Gly Cys Asp Ala Asn Gly Asp Arg Cys His Asp
 20 25 30
 Gln Cys Val Gly Gly Cys Glu Arg Val Asn Asp Ala Thr Ala Cys His
 35 40 45
 Ala Cys Lys Asn Val Tyr His Lys Gly Lys Cys Ile Glu Lys Cys Asp
 50 55 60
 Ala His Leu Tyr Leu Leu Leu Gln Arg Arg Cys Val Thr Arg Glu Gln
 65 70 75 80
 Cys Leu Gln Leu Asn Pro Val Leu Ser Asn Lys Thr Val Pro Ile Lys
 85 90 95
 Ala Thr Ala Gly Leu Cys Ser Asp Lys Cys Pro Asp Gly Tyr Gln Ile
 100 105 110
 Asn Pro Asp Asp His Arg Glu Cys Arg Lys Cys Val Gly Lys Cys Glu
 115 120 125
 Ile Val Cys
 130

<210> 35
 <211> 103
 <212> PRT

<213> *Caenorhabditis elegans*

<400> 35

Phe Asp Gln Lys Ala Cys Glu Ser Leu Val Lys Lys Leu Lys Asp Lys
1 5 10 15
Lys Asn Asp Leu Gln Asn Leu Ile Asp Val Val Leu Ser Lys Gly Thr
20 25 30
Lys Tyr Thr Gly Cys Ile Thr Ile Pro Arg Thr Leu Asp Gly Arg Leu
35 40 45
Gln Val His Gly Arg Lys Gly Phe Pro His Val Val Tyr Gly Lys Leu
50 55 60
Trp Arg Phe Asn Glu Met Thr Lys Asn Glu Thr Arg His Val Asp His
65 70 75 80
Cys Lys His Ala Phe Glu Met Lys Ser Asp Met Val Cys Val Asn Pro
85 90 95
Tyr His Tyr Glu Ile Val Ile
100

<210> 36

<211> 79

<212> PRT

<213> *Caenorhabditis elegans*

<400> 36

Asn Arg Tyr Ser Leu Gly Leu Glu Pro Asn Pro Ile Arg Glu Pro Val
1 5 10 15
Ala Phe Lys Val Arg Lys Ala Ile Val Asp Gly Ile Arg Phe Ser Tyr
20 25 30
Lys Lys Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro Val
35 40 45
Phe Val Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys Lys
50 55 60
Asp Lys Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe
65 70 75

<210> 37

<211> 106

<212> PRT

<213> *Caenorhabditis elegans*

<400> 37

Lys Lys Thr Thr Thr Arg Arg Asn Ala Trp Gly Asn Met Ser Tyr Ala
1 5 10 15
Glu Leu Ile Thr Thr Ala Ile Met Ala Ser Pro Glu Lys Arg Leu Thr
20 25 30
Leu Ala Gln Val Tyr Glu Trp Met Val Gln Asn Val Pro Tyr Phe Arg
35 40 45
Asp Lys Gly Asp Ser Asn Ser Ser Ala Gly Trp Lys Asn Ser Ile Arg
50 55 60
His Asn Leu Ser Leu His Ser Arg Phe Met Arg Ile Gln Asn Glu Gly
65 70 75 80

Ala Gly Lys Ser Ser Trp Trp Val Ile Asn Pro Asp Ala Lys Pro Gly
85 90 95
Met Asn Pro Arg Arg Thr Arg Glu Arg Ser
100 105

<210> 38
<211> 60
<212> PRT
<213> Caenorhabditis elegans

<400> 38
Glu Ile Lys Leu Ser Asp Phe Lys His Gln Leu Phe Glu Leu Ile Ala
1 5 10 15
Pro Met Lys Trp Gly Thr Tyr Ser Val Lys Pro Gln Asp Tyr Val Phe
20 25 30
Arg Gln Leu Asn Asn Phe Gly Glu Ile Glu Val Ile Phe Asn Asp Asp
35 40 45
Gln Pro Leu Ser Lys Leu Glu Leu His Gly Thr Phe
50 55 60

<210> 39
<211> 2784
<212> DNA
<213> Caenorhabditis elegans

<400> 39
atgaagctaa tagcaacttc tcttctagtt cccgacgagc acacaccgat gatgtcacca 60
gtgaatacaa ctacaaagat tctacaacgg agtgggtatta aaatggaaat cccgccatat 120
ttggatccag acagtcagga tgatgacccg gaagatgggtg tcaactaccc ggatccagat 180
ttatattgaca caaaaaacac aaatatgacc gagtacgatt tggatgtgtt gaagcttgga 240
aaaccagcag tagatgaagc acggaaaaag atcgaagtcc cgcacgctag tgcgccgcca 300
aacaaaattg tagaatattt gatgtattat agaacgttaa aagaaagtga actcatacaa 360
ctgaatgcgt atcggacaaa acgaaatcga ttatcgttga acttgggtcaa aaacaatatt 420
gatcgagagt tcgacaaaa agcttgcgag tccctgggtga aaaaattgaa ggataagaag 480
aatgatctcc agaacctgat tgatgtgggt ctttcaaaag gtacaaaata taccggttgc 540
attacaattc caaggacact tgatggccgg ttacaggtcc acggaagaaa aggtttccct 600
cacgtagtct atggcaaact gtggagggtt aatgaaatga caaaaaacga aacgcgtcat 660
gtggaccact gcaagcacgc atttgaaatg aaaagtgaca tggatatcgt gaatccctat 720
cactacgaaa ttgtcattgg aactatgatt gttgggcaga gggatcatga caatcgagat 780
atgccgccgc cacatcaacg ctaccacact ccaggtcggc aggatccagt tgacgatatg 840
agtagattta taccaccagc ttccattcgt ccgcctccga tgaacatgca cacaaggcct 900
cagcctatgc ctcaacaatt gccttcagtt ggcgcaacgt ttgcccattc tctcccacat 960
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catcagggat atggaatgaa tgggcccagat tgctcttcag aaaacaacaa tccattccac 1140
caaaatcacc attataatga tattagccat ccaaatcact attcctacga ctgtgggtccg 1200
aacttgtagc ggtttccaac tccttatccg gattttcacc atcctttcaa tcagcaacca 1260
caccagccgc cacaactatc acaaaacat acgtcccaac aaggcagtca tcaaccaggg 1320
caccaaggtc aggtaccgaa tgatccacca atttcaagac cagtgttaca accatcaaca 1380
gtcaccttgg acgtgttccg tcggtactgt agacagacat ttggaaatcg attttttgaa 1440
ggagaaagtg aacaatccgg cgcaataatt cgggtctagta acaaattcat tgaagaattt 1500

gattcgccga	tttgtggtgt	gacagttggt	cgaccgcgga	tgacagacgg	tgaggttttg	1560
gagaacatca	tgccggaaga	tgccaccatat	catgacattt	gcaagttcat	tttgaggctc	1620
acatcagaaa	gtgtaacttt	ctcaggagag	gggccagaag	ttagtgattt	gaacgaaaaa	1680
tggggaacaa	ttgtgtacta	tgagaaaaat	ttgcaaatg	gcgagaaaaa	atgttcgaga	1740
ggaaatttcc	acgtggatgg	cggattcatt	tgctctgaga	atcgttacag	tctcggactt	1800
gagccaaatc	caattagaga	accagtggcg	tttaaagtgc	gtaaagcaat	agtggatgga	1860
attcgctttt	cctacaaaaa	agacgggagt	gtttggcttc	aaaaccgcat	gaagtacccg	1920
gtatttgtca	cttctgggta	tctcgacgag	caatcaggag	gcctaaagaa	ggataaagtg	1980
cacaaagttt	acggatgtgc	gtctatcaaa	acgtttggct	tcaacgtttc	caaacaaatc	2040
atcagagacg	cgcttctttc	caagcaaatg	gcaacaatgt	acttgcaagg	aaaattgact	2100
ccgatgaatt	atatctacga	gaagaagact	caggaagagc	tgcaagggga	agcaacacgc	2160
accactgatt	cattggccaa	gtactgttgt	gtccgtgtct	cgttctgcaa	aggatttgga	2220
gaagcatacc	cagaacgccc	gtcaattcat	gattgtccag	tttggattga	gttgaaaatc	2280
aacattgcct	acgatttcat	ggattcaatc	tgccagtaca	taaccaactg	cttcgagccg	2340
ctaggaatgg	aagattttgc	aaaattggga	atcaacgtca	gtgatgacta	aatgataact	2400
tttttcactc	accctactag	atactgattt	agtcttattc	caaatacatc	aacgatatac	2460
aactttttcc	tttgaacttt	gcatactatg	ttatcacaag	ttccaagcag	tttcaataca	2520
aacataggat	atgttaacaa	cttttgataa	gaatcaagtt	accaactgtt	cattgtgagc	2580
tttgagctgt	atagaaggac	aatgtatccc	atacctcaat	ctttaatagt	catcagtcac	2640
tggtcccgcg	ccaatttttt	cgattcgcac	atgtcatata	ttgcaccgtg	gcccttttta	2700
ttgtaacttt	taatatattt	tcttcccaac	ttgtgaatat	gattgatgaa	ccaccatttt	2760
gagtaataaa	tgtatttttt	gtgg				2784

<210> 40

<211> 796

<212> PRT

<213> *Caenorhabditis elegans*

<400> 40

Met	Lys	Leu	Ile	Ala	Thr	Ser	Leu	Leu	Val	Pro	Asp	Glu	His	Thr	Pro
1				5					10					15	
Met	Met	Ser	Pro	Val	Asn	Thr	Thr	Thr	Lys	Ile	Leu	Gln	Arg	Ser	Gly
			20					25					30		
Ile	Lys	Met	Glu	Ile	Pro	Pro	Tyr	Leu	Asp	Pro	Asp	Ser	Gln	Asp	Asp
		35					40				45				
Asp	Pro	Glu	Asp	Gly	Val	Asn	Tyr	Pro	Asp	Pro	Asp	Leu	Phe	Asp	Thr
	50					55				60					
Lys	Asn	Thr	Asn	Met	Thr	Glu	Tyr	Asp	Leu	Asp	Val	Leu	Lys	Leu	Gly
65					70				75					80	
Lys	Pro	Ala	Val	Asp	Glu	Ala	Arg	Lys	Lys	Ile	Glu	Val	Pro	Asp	Ala
			85					90						95	
Ser	Ala	Pro	Pro	Asn	Lys	Ile	Val	Glu	Tyr	Leu	Met	Tyr	Tyr	Arg	Thr
			100					105						110	
Leu	Lys	Glu	Ser	Glu	Leu	Ile	Gln	Leu	Asn	Ala	Tyr	Arg	Thr	Lys	Arg
		115					120					125			
Asn	Arg	Leu	Ser	Leu	Asn	Leu	Val	Lys	Asn	Asn	Ile	Asp	Arg	Glu	Phe
	130					135					140				
Asp	Gln	Lys	Ala	Cys	Glu	Ser	Leu	Val	Lys	Lys	Leu	Lys	Asp	Lys	Lys
145				150					155					160	
Asn	Asp	Leu	Gln	Asn	Leu	Ile	Asp	Val	Val	Leu	Ser	Lys	Gly	Thr	Lys
				165					170					175	

130	135	140
Ala Val Asp Glu Ala Arg Lys Lys Ile Glu Val Pro Asp Ala Ser Ala		
145	150	155
Pro Pro Asn Lys Ile Val Glu Tyr Leu Met Tyr Tyr Arg Thr Leu Lys		160
	165	170
Glu Ser Glu Leu Ile Gln Leu Asn Ala Tyr Arg Thr Lys Arg Asn Arg		175
	180	185
Leu Ser Leu Asn Leu Val Lys Asn Asn Ile Asp Arg Glu Phe Asp Gln		190
	195	200
Lys Ala Cys Glu Ser Leu Val Lys Lys Leu Lys Asp Lys Lys Asn Asp		205
	210	215
Leu Gln Asn Leu Ile Asp Val Val Leu Ser Lys Gly Thr Lys Tyr Thr		220
225	230	235
Gly Cys Ile Thr Ile Pro Arg Thr Leu Asp Gly Arg Leu Gln Val His		240
	245	250
Gly Arg Lys Gly Phe Pro His Val Val Tyr Gly Lys Leu Trp Arg Phe		255
	260	265
Asn Glu Met Thr Lys Asn Glu Thr Arg His Val Asp His Cys Lys His		270
	275	280
Ala Phe Glu Met Lys Ser Asp Met Val Cys Val Asn Pro Tyr His Tyr		285
	290	295
Glu Ile Val Ile Gly Thr Met Ile Val Gly Gln Arg Asp His Asp Asn		300
305	310	315
Arg Asp Met Pro Pro Pro His Gln Arg Tyr His Thr Pro Gly Arg Gln		320
	325	330
Asp Pro Val Asp Asp Met Ser Arg Phe Ile Pro Pro Ala Ser Ile Arg		335
	340	345
Pro Pro Pro Met Asn Met His Thr Arg Pro Gln Pro Met Pro Gln Gln		350
	355	360
Leu Pro Ser Val Gly Ala Thr Phe Ala His Pro Leu Pro His Gln Ala		365
	370	375
Pro His Asn Pro Gly Val Ser His Pro Tyr Ser Ile Ala Pro Gln Thr		380
385	390	395
His Tyr Pro Leu Asn Met Asn Pro Ile Pro Gln Met Pro Gln Met Pro		400
	405	410
Gln Met Pro Pro Pro Leu His Gln Gly Tyr Gly Met Asn Gly Pro Ser		415
	420	425
Cys Ser Ser Glu Asn Asn Asn Pro Phe His Gln Asn His His Tyr Asn		430
	435	440
Asp Ile Ser His Pro Asn His Tyr Ser Tyr Asp Cys Gly Pro Asn Leu		445
	450	455
Tyr Gly Phe Pro Thr Pro Tyr Pro Asp Phe His His Pro Phe Asn Gln		460
465	470	475
Gln Pro His Gln Pro Pro Gln Leu Ser Gln Asn His Thr Ser Gln Gln		480
	485	490
Gly Ser His Gln Pro Gly His Gln Gly Gln Val Pro Asn Asp Pro Pro		495
	500	505
Ile Ser Arg Pro Val Leu Gln Pro Ser Thr Val Thr Leu Asp Val Phe		510
	515	520
Arg Arg Tyr Cys Arg Gln Thr Phe Gly Asn Arg Phe Phe Glu Gly Glu		525
	530	535
		540

Ser Glu Gln Ser Gly Ala Ile Ile Arg Ser Ser Asn Lys Phe Ile Glu
 545 550 555 560
 Glu Phe Asp Ser Pro Ile Cys Gly Val Thr Val Val Arg Pro Arg Met
 565 570 575
 Thr Asp Gly Glu Val Leu Glu Asn Ile Met Pro Glu Asp Ala Pro Tyr
 580 585 590
 His Asp Ile Cys Lys Phe Ile Leu Arg Leu Thr Ser Glu Ser Val Thr
 595 600 605
 Phe Ser Gly Glu Gly Pro Glu Val Ser Asp Leu Asn Glu Lys Trp Gly
 610 615 620
 Thr Ile Val Tyr Tyr Glu Lys Asn Leu Gln Ile Gly Glu Lys Lys Cys
 625 630 635 640
 Ser Arg Gly Asn Phe His Val Asp Gly Gly Phe Ile Cys Ser Glu Asn
 645 650 655
 Arg Tyr Ser Leu Gly Leu Glu Pro Asn Pro Ile Arg Glu Pro Val Ala
 660 665 670
 Phe Lys Val Arg Lys Ala Ile Val Asp Gly Ile Arg Phe Ser Tyr Lys
 675 680 685
 Lys Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro Val Phe
 690 695 700
 Val Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys Lys Asp
 705 710 715 720
 Lys Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe Gly Phe
 725 730 735
 Asn Val Ser Lys Gln Ile Ile Arg Asp Ala Leu Leu Ser Lys Gln Met
 740 745 750
 Ala Thr Met Tyr Leu Gln Gly Lys Leu Thr Pro Met Asn Tyr Ile Tyr
 755 760 765
 Glu Lys Lys Thr Gln Glu Glu Leu Arg Arg Glu Ala Thr Arg Thr Thr
 770 775 780
 Asp Ser Leu Ala Lys Tyr Cys Cys Val Arg Val Ser Phe Cys Lys Gly
 785 790 795 800
 Phe Gly Glu Ala Tyr Pro Glu Arg Pro Ser Ile His Asp Cys Pro Val
 805 810 815
 Trp Ile Glu Leu Lys Ile Asn Ile Ala Tyr Asp Phe Met Asp Ser Ile
 820 825 830
 Cys Gln Tyr Ile Thr Asn Cys Phe Glu Pro Leu Gly Met Glu Asp Phe
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 Ala Lys Leu Gly Ile Asn Val Ser Asp Asp
 850 855

<210> 42
 <211> 892
 <212> PRT
 <213> Caenorhabditis elegans

<400> 42
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 20 25 30

435	440	445
Met Pro Gln Met Pro Pro Pro Leu His Gln Gly Tyr Gly Met Asn Gly		
450	455	460
Pro Ser Cys Ser Ser Glu Asn Asn Asn Pro Phe His Gln Asn His His		
465	470	475
Tyr Asn Asp Ile Ser His Pro Asn His Tyr Ser Tyr Asp Cys Gly Pro		480
	485	490
Asn Leu Tyr Gly Phe Pro Thr Pro Tyr Pro Asp Phe His His Pro Phe		495
	500	505
Asn Gln Gln Pro His Gln Pro Pro Gln Leu Ser Gln Asn His Thr Ser		510
	515	520
Gln Gln Gly Ser His Gln Pro Gly His Gln Gly Gln Val Pro Asn Asp		525
	530	535
Pro Pro Ile Ser Arg Pro Val Leu Gln Pro Ser Thr Val Thr Leu Asp		540
545	550	555
Val Phe Arg Arg Tyr Cys Arg Gln Thr Phe Gly Asn Arg Phe Phe Glu		560
	565	570
Gly Glu Ser Glu Gln Ser Gly Ala Ile Ile Arg Ser Ser Asn Lys Phe		575
	580	585
Ile Glu Glu Phe Asp Ser Pro Ile Cys Gly Val Thr Val Val Arg Pro		590
	595	600
Arg Met Thr Asp Gly Glu Val Leu Glu Asn Ile Met Pro Glu Asp Ala		605
610	615	620
Pro Tyr His Asp Ile Cys Lys Phe Ile Leu Arg Leu Thr Ser Glu Ser		625
	630	635
Val Thr Phe Ser Gly Glu Gly Pro Glu Val Ser Asp Leu Asn Glu Lys		640
	645	650
Trp Gly Thr Ile Val Tyr Tyr Glu Lys Asn Leu Gln Ile Gly Glu Lys		655
	660	665
Lys Cys Ser Arg Gly Asn Phe His Val Asp Gly Gly Phe Ile Cys Ser		670
	675	680
Glu Asn Arg Tyr Ser Leu Gly Leu Glu Pro Asn Pro Ile Arg Glu Pro		685
	690	695
Val Ala Phe Lys Val Arg Lys Ala Ile Val Asp Gly Ile Arg Phe Ser		700
705	710	715
Tyr Lys Lys Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro		720
	725	730
Val Phe Val Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys		735
	740	745
Lys Asp Lys Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe		750
	755	760
Gly Phe Asn Val Ser Lys Gln Ile Ile Arg Asp Ala Leu Leu Ser Lys		765
	770	775
Gln Met Ala Thr Met Tyr Leu Gln Gly Lys Leu Thr Pro Met Asn Tyr		780
785	790	795
Ile Tyr Glu Lys Lys Thr Gln Glu Glu Leu Arg Arg Glu Ala Thr Arg		800
	805	810
Thr Thr Asp Ser Leu Ala Lys Tyr Cys Cys Val Arg Val Ser Phe Cys		815
	820	825
Lys Gly Phe Gly Glu Ala Tyr Pro Glu Arg Pro Ser Ile His Asp Cys		830
835	840	845

Pro Val Trp Ile Glu Leu Lys Ile Asn Ile Ala Tyr Asp Phe Met Asp
 850 855 860
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<210> 43
 <211> 3499
 <212> DNA
 <213> Caenorhabditis elegans

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 aatacaccgg atgatgtgat gatgaatgat gatatggaac cgattcctcg tgatcggtgc 480
 aatacgtggc caatgcgtag gccgcaactc gaaccaccac tcaactcgag tcccattatt 540
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<210> 44

<211> 2704

<212> DNA

<213> *Caenorhabditis elegans*

<400> 44

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<210> 45

<211> 510

<212> PRT

<213> Caenorhabditis elegans

<400> 45

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Asn	Thr	Pro	Asp	Asp	Val	Met	Met	Asn	Asp	Asp	Met	Glu	Pro	Ile	Pro
		35					40					45			
Arg	Asp	Arg	Cys	Asn	Thr	Trp	Pro	Met	Arg	Arg	Pro	Gln	Leu	Glu	Pro
	50					55					60				
Pro	Leu	Asn	Ser	Ser	Pro	Ile	Ile	His	Glu	Gln	Ile	Pro	Glu	Glu	Asp
65					70					75				80	
Ala	Asp	Leu	Tyr	Gly	Ser	Asn	Glu	Gln	Cys	Gly	Gln	Leu	Gly	Gly	Ala
				85						90				95	
Ser	Ser	Asn	Gly	Ser	Thr	Ala	Met	Leu	His	Thr	Pro	Asp	Gly	Ser	Asn
		100						105					110		
Ser	His	Gln	Thr	Ser	Phe	Pro	Ser	Asp	Phe	Arg	Met	Ser	Glu	Ser	Pro
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	130					135					140				
Gly	Asn	Met	Ser	Tyr	Ala	Glu	Leu	Ile	Thr	Thr	Ala	Ile	Met	Ala	Ser
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Pro	Glu	Lys	Arg	Leu	Thr	Leu	Ala	Gln	Val	Tyr	Glu	Trp	Met	Val	Gln

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His Leu Asn Gln	His Asn Asn Pro Tyr	His Pro Met His	Pro His His
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Gly Gly Ala Gln Cys Ser Pro Cys Ala Ser Gly Ser Ser Thr Ala Ala			
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Thr Asn Ser Ser Gln Gln Gln Gln Thr Val Gly Gln Met Leu Ala Ala			
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Ser Val Pro Cys Ser Ser Ser Gly Met Thr Leu Gly Met Ser Leu Asn			
100	105	110	
Leu Ser Gln Gly Gly Gly Pro Met Pro Ala Lys Lys Lys Arg Cys Arg			
115	120	125	
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165	170	175	
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180	185	190	
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210	215	220	
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260	265	270	
Thr Leu Asn Gly Asn Ser Ile Ala Gly Ser Ile Gln Thr Ile Ser His			
275	280	285	
Asp Leu Tyr Asp Asp Asp Ser Met Gln Gly Ala Phe Asp Asn Val Pro			
290	295	300	
Ser Ser Phe Arg Pro Arg Thr Gln Ser Asn Leu Ser Ile Pro Gly Ser			
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Ser Ser Arg Val Ser Pro Ala Ile Gly Ser Asp Ile Tyr Asp Asp Leu			
325	330	335	
Glu Phe Pro Ser Trp Val Gly Glu Ser Val Pro Ala Ile Pro Ser Asp			
340	345	350	
Ile Val Asp Arg Thr Asp Gln Met Arg Ile Asp Ala Thr Thr His Ile			
355	360	365	
Gly Gly Val Gln Ile Lys Gln Glu Ser Lys Pro Ile Lys Thr Glu Pro			
370	375	380	
Ile Ala Pro Pro Pro Ser Tyr His Glu Leu Asn Ser Val Arg Gly Ser			
385	390	395	400
Cys Ala Gln Asn Pro Leu Leu Arg Asn Pro Ile Val Pro Ser Thr Asn			
405	410	415	

Phe Lys Pro Met Pro Leu Pro Gly Ala Tyr Gly Asn Tyr Gln Asn Gly
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 Pro Gly Ile Gln Ser Cys Gly Ile Val Ala Ala Gln His Thr Val Ala
 450 455 460
 Ser Ser Ser Ala Leu Pro Ile Asp Leu Glu Asn Leu Thr Leu Pro Asp
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<210> 47
 <211> 3504
 <212> DNA
 <213> Caenorhabditis elegans

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<211> 1167

<212> PRT

<213> *Caenorhabditis elegans*

<400> 48

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Thr Glu Asp Gly Lys Tyr Val His Ile Asp Phe Gly His Ile Leu Gly						
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Asp His Leu Lys Lys Thr Leu Phe Cys Asn Gly Glu Ser Lys Glu Glu						
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<220>
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23

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<220>
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<400> 50
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20

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28

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 <213> *Caenorhabditis elegans*

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<211> 3119

<212> DNA

<213> *Caenorhabditis elegans*

<400> 53

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<211> 103

<212> PRT

<213> *Caenorhabditis elegans*

<400> 54

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Leu	Ala	Gln	Val	Tyr	Glu	Trp	Met	Val	Gln	Asn	Val	Pro	Tyr	Phe	Arg
			35				40					45			
Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala	Gly	Trp	Lys	Asn	Ser	Ile	Arg
	50					55					60				
His	Asn	Leu	Ser	Leu	His	Ser	Arg	Phe	Met	Arg	Ile	Gln	Asn	Glu	Gly
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Ala	Gly	Lys	Ser	Ser	Trp	Trp	Val	Ile	Asn	Pro	Asp	Ala	Lys	Pro	Gly
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<212> PRT

<213> *Caenorhabditis elegans*

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<210> 56

<211> 109

<212> PRT

<213> Caenorhabditis elegans

<400> 56

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Asn Val Pro Tyr Phe Arg Asp Lys Gly Asp Ser Asn Ser Ser Ala Gly
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Trp Lys Asn Ser Ile Arg His Asn Leu Ser Leu His Ser Arg Phe Met
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Pro Asp Ala Lys Pro Gly Met Asn Pro Arg Arg Thr Arg
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<210> 57

<211> 655

<212> PRT

<213> Homo sapiens

<400> 57

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35 40 45
Ala Ala Asn Pro Asp Ala Ala Ala Gly Leu Pro Ser Ala Ser Ala Ala
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Ala Val Ser Ala Asp Phe Met Ser Asn Leu Ser Leu Leu Glu Glu Ser
65 70 75 80
Glu Asp Phe Pro Gln Ala Pro Gly Ser Val Ala Ala Ala Val Ala Ala
85 90 95
Ala Ala Ala Ala Ala Ala Thr Gly Gly Leu Cys Gly Asp Phe Gln Gly
100 105 110
Pro Glu Ala Gly Cys Leu His Pro Ala Pro Pro Gln Pro Pro Pro Pro
115 120 125

Gly	Pro	Val	Ser	Gln	His	Pro	Pro	Val	Pro	Pro	Ala	Ala	Ala	Gly	Pro	130	135	140
Leu	Ala	Gly	Gln	Pro	Arg	Lys	Ser	Ser	Ser	Ser	Arg	Arg	Asn	Ala	Trp	145	150	155
Gly	Asn	Leu	Ser	Tyr	Ala	Asp	Leu	Ile	Thr	Lys	Ala	Ile	Glu	Ser	Ser	165	170	175
Ala	Glu	Lys	Arg	Leu	Thr	Leu	Ser	Gln	Ile	Tyr	Glu	Trp	Met	Val	Lys	180	185	190
Ser	Val	Pro	Tyr	Phe	Lys	Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala	Gly	195	200	205
Trp	Lys	Asn	Ser	Ile	Arg	His	Asn	Leu	Ser	Leu	His	Ser	Lys	Phe	Ile	210	215	220
Arg	Val	Gln	Asn	Glu	Gly	Thr	Gly	Lys	Ser	Ser	Trp	Trp	Met	Leu	Asn	225	230	235
Pro	Glu	Gly	Gly	Lys	Ser	Gly	Lys	Ser	Pro	Arg	Arg	Arg	Ala	Ala	Ser	245	250	255
Met	Asp	Asn	Asn	Ser	Lys	Phe	Ala	Lys	Ser	Arg	Ser	Arg	Ala	Ala	Lys	260	265	270
Lys	Lys	Ala	Ser	Leu	Gln	Ser	Gly	Gln	Glu	Gly	Ala	Gly	Asp	Ser	Pro	275	280	285
Gly	Ser	Gln	Phe	Ser	Lys	Trp	Pro	Ala	Ser	Pro	Gly	Ser	His	Ser	Asn	290	295	300
Asp	Asp	Phe	Asp	Asn	Trp	Ser	Thr	Phe	Arg	Pro	Arg	Thr	Ser	Ser	Asn	305	310	315
Ala	Ser	Thr	Ile	Ser	Gly	Arg	Leu	Ser	Pro	Ile	Met	Thr	Glu	Gln	Asp	325	330	335
Asp	Leu	Gly	Glu	Gly	Asp	Val	His	Ser	Met	Val	Tyr	Pro	Pro	Ser	Ala	340	345	350
Ala	Lys	Met	Ala	Ser	Thr	Leu	Pro	Ser	Leu	Ser	Glu	Ile	Ser	Asn	Pro	355	360	365
Glu	Asn	Met	Glu	Asn	Leu	Leu	Asp	Asn	Leu	Asn	Leu	Leu	Ser	Ser	Pro	370	375	380
Thr	Ser	Leu	Thr	Val	Ser	Thr	Gln	Ser	Ser	Pro	Gly	Thr	Met	Met	Gln	385	390	395
Gln	Thr	Pro	Cys	Tyr	Ser	Phe	Ala	Pro	Pro	Asn	Thr	Ser	Leu	Asn	Ser	405	410	415
Pro	Ser	Pro	Asn	Tyr	Gln	Lys	Tyr	Thr	Tyr	Gly	Gln	Ser	Ser	Met	Ser	420	425	430
Pro	Leu	Pro	Gln	Met	Pro	Ile	Gln	Thr	Leu	Gln	Asp	Asn	Lys	Ser	Ser	435	440	445
Tyr	Gly	Gly	Met	Ser	Gln	Tyr	Asn	Cys	Ala	Pro	Gly	Leu	Leu	Lys	Glu	450	455	460
Leu	Leu	Thr	Ser	Asp	Ser	Pro	Pro	His	Asn	Asp	Ile	Met	Thr	Pro	Val	465	470	475
Asp	Pro	Gly	Val	Ala	Gln	Pro	Asn	Ser	Arg	Val	Leu	Gly	Gln	Asn	Val	485	490	495
Met	Met	Gly	Pro	Asn	Ser	Val	Met	Ser	Thr	Tyr	Gly	Ser	Gln	Ala	Ser	500	505	510
His	Asn	Lys	Met	Met	Asn	Pro	Ser	Ser	His	Thr	His	Pro	Gly	His	Ala	515	520	525
Gln	Gln	Thr	Ser	Ala	Val	Asn	Gly	Arg	Pro	Leu	Pro	His	Thr	Val	Ser			

530		535		540
Thr Met Pro His Thr Ser Gly Met Asn Arg Leu Thr Gln Val Lys Thr				
545		550		555
Pro Val Gln Val Pro Leu Pro His Pro Met Gln Met Ser Ala Leu Gly				560
		565		570
Gly Tyr Ser Ser Val Ser Ser Cys Asn Gly Tyr Gly Arg Met Gly Leu				575
		580		585
Leu His Gln Glu Lys Leu Pro Ser Asp Leu Asp Gly Met Phe Ile Glu				590
		595		600
Arg Leu Asp Cys Asp Met Glu Ser Ile Ile Arg Asn Asp Leu Met Asp				605
		610		615
Gly Asp Thr Leu Asp Phe Asn Phe Asp Asn Val Leu Pro Asn Gln Ser				620
625		630		635
Phe Pro His Ser Val Lys Thr Thr Thr His Ser Trp Val Ser Gly				640
		645		650
				655

<210> 58
 <211> 98
 <212> PRT
 <213> Caenorhabditis elegans

<400> 58
Lys Pro Asn Pro Trp Gly Glu Glu Ser Tyr Ser Asp Ile Ile Ala Lys
1 5 10 15
Ala Leu Glu Ser Ala Pro Asp Gly Arg Leu Lys Leu Asn Glu Ile Tyr
20 25 30
Gln Trp Phe Ser Asp Asn Ile Pro Tyr Phe Gly Glu Arg Ser Ser Pro
35 40 45
Glu Glu Ala Ala Gly Trp Lys Asn Ser Ile Arg His Asn Leu Ser Leu
50 55 60
His Ser Arg Phe Met Arg Ile Gln Asn Glu Gly Ala Gly Lys Ser Ser
65 70 75 80
Trp Trp Val Ile Asn Pro Asp Ala Lys Pro Gly Met Asn Pro Arg Arg
85 90 95
Thr Arg

<210> 59
 <211> 7
 <212> PRT
 <213> Caenorhabditis elegans

<400> 59
Trp Lys Asn Ser Ile Arg His
1 5

<210> 60
 <211> 121
 <212> PRT
 <213> Caenorhabditis elegans

<400> 60

Gln	Val	Leu	Asp	Asp	His	Asp	Tyr	Gly	Arg	Cys	Val	Asp	Trp	Trp	Gly
1				5					10					15	
Val	Gly	Val	Val	Met	Tyr	Glu	Met	Met	Cys	Gly	Arg	Leu	Pro	Phe	Tyr
		20					25					30			
Ser	Lys	Asp	His	Asn	Lys	Leu	Phe	Glu	Leu	Ile	Met	Ala	Gly	Asp	Leu
		35					40					45			
Arg	Phe	Pro	Ser	Lys	Leu	Ser	Gln	Glu	Ala	Arg	Thr	Leu	Leu	Thr	Gly
	50					55					60				
Leu	Leu	Val	Lys	Asp	Pro	Thr	Gln	Arg	Leu	Gly	Gly	Gly	Pro	Glu	Asp
65					70					75				80	
Ala	Leu	Glu	Ile	Cys	Arg	Ala	Asp	Phe	Phe	Arg	Thr	Val	Asp	Trp	Glu
				85					90					95	
Ala	Thr	Tyr	Arg	Lys	Glu	Ile	Glu	Pro	Pro	Tyr	Lys	Pro	Asn	Val	Gln
			100					105					110		
Ser	Glu	Thr	Asp	Thr	Ser	Tyr	Phe	Asp							
		115						120							

<210> 61

<211> 66

<212> PRT

<213> *Caenorhabditis elegans*

<400> 61

Thr	Met	Glu	Asp	Phe	Asp	Phe	Leu	Lys	Val	Leu	Gly	Lys	Gly	Thr	Phe
1				5					10					15	
Gly	Lys	Val	Ile	Leu	Cys	Lys	Glu	Lys	Arg	Thr	Gln	Lys	Leu	Tyr	Ala
		20						25					30		
Ile	Lys	Ile	Leu	Lys	Lys	Asp	Val	Ile	Ile	Ala	Arg	Glu	Glu	Val	Ala
		35				40						45			
His	Thr	Leu	Thr	Glu	Asn	Arg	Val	Leu	Gln	Arg	Cys	Lys	His	Pro	Phe
	50					55					60				
Leu	Thr														
65															

<210> 62

<211> 45

<212> PRT

<213> *Caenorhabditis elegans*

<400> 62

Lys	Leu	Glu	Asn	Leu	Leu	Leu	Asp	Lys	Asp	Gly	His	Ile	Lys	Ile	Ala
1				5					10					15	
Asp	Phe	Gly	Leu	Cys	Lys	Glu	Glu	Ile	Ser	Phe	Gly	Asp	Lys	Thr	Ser
		20						25					30		
Thr	Phe	Cys	Gly	Thr	Pro	Glu	Tyr	Leu	Ala	Pro	Glu	Val			
		35					40					45			

<210> 63

<211> 57

<212> PRT

<213> Caenorhabditis elegans

<400> 63

Tyr	Phe	Gln	Glu	Leu	Lys	Tyr	Ser	Phe	Gln	Glu	Gln	His	Tyr	Leu	Cys
1				5					10					15	
Phe	Val	Met	Gln	Phe	Ala	Asn	Gly	Gly	Glu	Leu	Phe	Thr	His	Val	Arg
			20					25					30		
Lys	Cys	Gly	Thr	Phe	Ser	Glu	Pro	Arg	Ala	Arg	Phe	Tyr	Gly	Ala	Glu
		35					40					45			
Ile	Val	Leu	Ala	Leu	Gly	Tyr	Leu	His							
	50						55								

<210> 64

<211> 59

<212> PRT

<213> Caenorhabditis elegans

<400> 64

Ser	Thr	Phe	Ala	Ile	Phe	Tyr	Phe	Gln	Thr	Met	Leu	Phe	Glu	Lys	Pro
1				5				10						15	
Arg	Pro	Asn	Met	Phe	Met	Val	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile
			20					25					30		
Glu	Arg	Thr	Phe	Tyr	Ala	Glu	Ser	Ala	Glu	Val	Arg	Gln	Arg	Trp	Ile
		35					40					45			
His	Ala	Ile	Glu	Ser	Ile	Ser	Lys	Lys	Tyr	Lys					
	50						55								

<210> 65

<211> 33

<212> PRT

<213> Caenorhabditis elegans

<400> 65

Leu	Gln	Glu	Leu	Lys	Tyr	Ser	Phe	Gln	Thr	Asn	Asp	Arg	Leu	Cys	Phe
1				5				10						15	
Val	Met	Glu	Phe	Ala	Ile	Gly	Gly	Asp	Leu	Tyr	Tyr	His	Leu	Asn	Arg
			20					25					30		
Glu															

<210> 66

<211> 21

<212> PRT

<213> Caenorhabditis elegans

<400> 66

Val	Val	Ile	Glu	Gly	Trp	Leu	His	Lys	Lys	Gly	Glu	His	Ile	Arg	Asn
1				5				10						15	
Trp	Arg	Pro	Arg	Phe											
			20												

<210> 67
 <211> 26
 <212> PRT
 <213> Caenorhabditis elegans

<400> 67
 Phe Ser Glu Pro Arg Ala Arg Phe Tyr Gly Ser Glu Ile Val Leu Ala
 1 5 10 15
 Leu Gly Tyr Leu His Ala Asn Ser Ile Val
 20 25

<210> 68
 <211> 39
 <212> PRT
 <213> Caenorhabditis elegans

<400> 68
 Ile Arg Val Ser Phe Cys Lys Gly Phe Gly Glu Thr Tyr Ser Arg Leu
 1 5 10 15
 Lys Val Val Asn Leu Pro Cys Trp Ile Glu Ile Ile Leu His Glu Pro
 20 25 30
 Ala Asp Glu Tyr Asp Thr Val
 35

<210> 69
 <211> 45
 <212> PRT
 <213> Caenorhabditis elegans

<400> 69
 Ser Arg Asn Ser Lys Ser Ser Gln Ile Arg Asn Thr Val Gly Ala Gly
 1 5 10 15
 Ile Gln Leu Ala Tyr Glu Asn Gly Glu Leu Trp Leu Thr Val Leu Thr
 20 25 30
 Asp Gln Ile Val Phe Val Gln Cys Pro Phe Leu Asn Gln
 35 40 45

<210> 70
 <211> 29
 <212> PRT
 <213> Caenorhabditis elegans

<400> 70
 Asn Glu Met Leu Asp Pro Glu Pro Lys Tyr Pro Lys Glu Glu Lys Pro
 1 5 10 15
 Trp Cys Thr Ile Phe Tyr Tyr Glu Leu Thr Val Arg Val
 20 25

<210> 71
 <211> 29
 <212> PRT

<213> Caenorhabditis elegans

<400> 71

Gln	Leu	Gly	Lys	Ala	Phe	Glu	Ala	Lys	Val	Pro	Thr	Ile	Thr	Ile	Asp
1				5					10					15	
Gly	Ala	Thr	Gly	Ala	Ser	Asp	Glu	Cys	Arg	Met	Ser	Leu			
			20					25							

<210> 72

<211> 105

<212> PRT

<213> Caenorhabditis elegans

<400> 72

Ser	Pro	Asp	Asp	Gly	Leu	Leu	Asp	Ser	Ser	Glu	Glu	Ser	Arg	Arg	Arg
1				5					10					15	
Gln	Lys	Thr	Cys	Arg	Val	Cys	Gly	Asp	His	Ala	Thr	Gly	Tyr	Asn	Phe
			20					25					30		
Asn	Val	Ile	Thr	Cys	Glu	Ser	Cys	Lys	Ala	Phe	Phe	Arg	Arg	Asn	Ala
		35					40					45			
Leu	Arg	Pro	Lys	Glu	Phe	Lys	Cys	Pro	Tyr	Ser	Glu	Asp	Cys	Glu	Ile
	50					55					60				
Asn	Ser	Val	Ser	Arg	Arg	Phe	Cys	Gln	Lys	Cys	Arg	Leu	Arg	Lys	Cys
65					70					75				80	
Phe	Thr	Val	Gly	Met	Lys	Lys	Glu	Trp	Ile	Leu	Asn	Glu	Glu	Gln	Leu
				85				90						95	
Arg	Arg	Arg	Lys	Asn	Ser	Arg	Leu	Asn							
			100					105							

<210> 73

<211> 89

<212> PRT

<213> Caenorhabditis elegans

<400> 73

Leu	Asp	Ser	Ser	Glu	Glu	Ser	Arg	Arg	Arg	Gln	Lys	Thr	Cys	Arg	Val
1				5					10					15	
Cys	Gly	Asp	His	Ala	Thr	Gly	Tyr	Asn	Phe	Asn	Val	Ile	Thr	Cys	Glu
			20					25					30		
Ser	Cys	Lys	Ala	Phe	Phe	Arg	Arg	Asn	Ala	Leu	Arg	Pro	Lys	Glu	Phe
		35					40					45			
Lys	Cys	Pro	Tyr	Ser	Glu	Asp	Cys	Glu	Ile	Asn	Ser	Val	Ser	Arg	Arg
	50					55				60					
Phe	Cys	Gln	Lys	Cys	Arg	Leu	Arg	Lys	Cys	Phe	Thr	Val	Gly	Met	Lys
65					70					75				80	
Lys	Glu	Trp	Ile	Leu	Asn	Glu	Glu	Gln							
				85											

<210> 74

<211> 73

<212> PRT

<213> *Caenorhabditis elegans*

<400> 74

```
Asp Ile Met Asn Ile Met Asp Val Thr Met Arg Arg Phe Val Lys Val
 1             5             10             15
Ala Lys Gly Val Pro Ala Phe Arg Glu Val Ser Gln Glu Gly Lys Phe
      20             25             30
Ser Leu Leu Lys Gly Gly Met Ile Glu Met Leu Thr Val Arg Gly Val
      35             40             45
Thr Arg Tyr Asp Ala Ser Thr Asn Ser Phe Lys Thr Pro Thr Ile Lys
      50             55             60
Gly Gln Asn Val Ser Val Asn Val Asp
65             70
```

<210> 75

<211> 112

<212> PRT

<213> *Caenorhabditis elegans*

<400> 75

```
Ser Gly Ser Leu Val Asp Leu Met Ile Lys Asn Leu Thr Ala Tyr Thr
 1             5             10             15
Gln Gly Leu Asn Glu Thr Val Lys Asn Arg Thr Ala Glu Leu Glu Lys
      20             25             30
Glu Gln Glu Lys Gly Asp Gln Leu Leu Met Glu Leu Leu Pro Lys Ser
      35             40             45
Val Ala Asn Asp Leu Lys Asn Gly Ile Ala Val Asp Pro Lys Val Tyr
      50             55             60
Glu Asn Ala Thr Ile Leu Tyr Ser Asp Ile Val Gly Phe Thr Ser Leu
65             70             75             80
Cys Ser Gln Ser Gln Pro Met Glu Val Val Thr Leu Leu Ser Gly Met
      85             90             95
Tyr Gln Arg Phe Asp Leu Ile Ile Ser Gln Gln Gly Gly Tyr Lys Val
      100             105             110
```

<210> 76

<211> 107

<212> PRT

<213> *Caenorhabditis elegans*

<400> 76

```
Met Glu Thr Ile Gly Asp Ala Tyr Cys Val Ala Ala Gly Leu Pro Val
 1             5             10             15
Val Met Glu Lys Asp His Val Lys Ser Ile Cys Met Ile Ala Leu Leu
      20             25             30
Gln Arg Asp Cys Leu His His Phe Glu Ile Pro His Arg Pro Gly Thr
      35             40             45
Phe Leu Asn Cys Arg Trp Gly Phe Asn Ser Gly Pro Val Phe Ala Gly
      50             55             60
Val Ile Gly Gln Lys Ala Pro Arg Tyr Ala Cys Phe Gly Glu Ala Val
65             70             75             80
```

Ile Leu Ala Ser Lys Met Glu Ser Ser Gly Val Glu Asp Arg Ile Gln
85 90 95
Met Thr Leu Ala Ser Gln Gln Leu Leu Glu Glu
100 105

<210> 77
<211> 43
<212> PRT
<213> Caenorhabditis elegans

<400> 77
Asp Ile Leu Lys Gly Leu Glu Tyr Ile His Ala Ser Ala Ile Asp Phe
1 5 10 15
His Gly Asn Leu Thr Leu His Asn Cys Met Leu Asp Ser His Trp Ile
20 25 30
Val Lys Leu Ser Gly Phe Gly Val Asn Arg Leu
35 40

<210> 78
<211> 15
<212> PRT
<213> Caenorhabditis elegans

<400> 78
Asp Met Tyr Ser Phe Gly Val Ile Leu His Glu Ile Ile Leu Lys
1 5 10 15

<210> 79
<211> 67
<212> PRT
<213> Caenorhabditis elegans

<400> 79
Ala Ile Lys Ile Asn Val Asp Asp Pro Ala Ser Thr Glu Asn Leu Asn
1 5 10 15
Tyr Leu Met Glu Ala Asn Ile Met Lys Asn Phe Lys Thr Asn Phe Ile
20 25 30
Val Gln Leu Tyr Gly Val Ile Ser Thr Val Gln Pro Ala Met Val Val
35 40 45
Met Glu Met Met Asp Leu Gly Asn Leu Arg Asp Tyr Leu Arg Ser Lys
50 55 60
Arg Glu Asp
65

<210> 80
<211> 54
<212> PRT
<213> Caenorhabditis elegans

<400> 80
Val Ile Lys Lys Pro Glu Cys Cys Glu Asn Tyr Trp Tyr Lys Val Met

1	5	10	15
Lys Met Cys Trp Arg Tyr Ser Pro Arg Asp Arg Pro Thr Phe Leu Gln			
20	25	30	
Leu Val His Leu Leu Ala Ala Glu Ala Ser Pro Glu Phe Arg Asp Leu			
35	40	45	
Ser Phe Val Leu Thr Asp			
50			

<210> 81
 <211> 69
 <212> PRT
 <213> Caenorhabditis elegans

<400> 81
Lys Gln Asp Ser Gly Met Ala Ser Glu Leu Lys Asp Ile Phe Ala Asn
1 5 10 15
Ile His Thr Ile Thr Gly Tyr Leu Leu Val Arg Gln Ser Ser Pro Phe
20 25 30
Ile Ser Leu Asn Met Phe Arg Asn Leu Arg Arg Ile Glu Ala Lys Ser
35 40 45
Leu Phe Arg Asn Leu Tyr Ala Ile Thr Val Phe Glu Asn Pro Asn Leu
50 55 60
Lys Lys Leu Phe Asp
65

<210> 82
 <211> 52
 <212> PRT
 <213> Caenorhabditis elegans

<400> 82
Phe Pro His Leu Arg Glu Ile Thr Gly Thr Leu Leu Val Phe Glu Thr
1 5 10 15
Glu Gly Leu Val Asp Leu Arg Lys Ile Phe Pro Asn Leu Arg Val Ile
20 25 30
Gly Gly Arg Ser Leu Ile Gln His Tyr Ala Leu Ile Ile Tyr Arg Asn
35 40 45
Pro Asp Leu Glu
50

<210> 83
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<400> 83
Glu Ile Gly Leu Asp Lys Leu Ser Val Ile Arg Asn Gly Gly Val Arg
1 5 10 15
Ile Ile Asp Asn Arg Lys Leu Cys Tyr Thr Lys Thr Ile Asp Trp Lys
20 25 30
His Leu Ile Thr Ser Ser Ile Asn Asp Val Val Val Asp Asn

35

40

45

<210> 84

<211> 36

<212> PRT

<213> *Caenorhabditis elegans*

<400> 84

Tyr	Asn	Ala	Asp	Asp	Trp	Glu	Leu	Arg	Gln	Asp	Asp	Val	Val	Leu	Gly
1				5					10					15	
Gln	Gln	Cys	Gly	Glu	Gly	Ser	Phe	Gly	Lys	Val	Tyr	Leu	Gly	Thr	Gly
			20					25					30		
Asn	Asn	Val	Val												
			35												

<210> 85

<211> 24

<212> PRT

<213> *Caenorhabditis elegans*

<400> 85

Asp	Ser	Leu	Ala	Lys	Tyr	Cys	Cys	Val	Arg	Val	Ser	Phe	Cys	Lys	Gly
1				5					10					15	
Phe	Gly	Glu	Ala	Tyr	Pro	Glu	Arg								
			20												

<210> 86

<211> 13

<212> PRT

<213> *Caenorhabditis elegans*

<400> 86

Gly	Trp	Asp	Trp	Ile	Val	Ala	Pro	Pro	Arg	Tyr	Asn	Ala
1				5					10			

<210> 87

<211> 121

<212> PRT

<213> *Homo sapiens*

<400> 87

Glu	Val	Leu	Glu	Asp	Asn	Asp	Tyr	Gly	Arg	Ala	Val	Asp	Trp	Trp	Gly
1				5					10					15	
Leu	Gly	Val	Val	Met	Tyr	Glu	Met	Met	Cys	Gly	Arg	Leu	Pro	Phe	Tyr
			20					25					30		
Asn	Gln	Asp	His	Glu	Lys	Leu	Phe	Glu	Leu	Ile	Leu	Met	Glu	Glu	Ile
		35					40					45			
Arg	Phe	Pro	Arg	Thr	Leu	Gly	Pro	Glu	Ala	Lys	Ser	Leu	Leu	Ser	Gly
	50					55				60					
Leu	Leu	Lys	Lys	Asp	Pro	Thr	Gln	Arg	Leu	Gly	Gly	Gly	Ser	Glu	Asp
65					70					75					80

Ala	Lys	Glu	Ile	Met	Gln	His	Arg	Phe	Phe	Ala	Asn	Ile	Val	Trp	Gln
				85					90					95	
Asp	Val	Tyr	Glu	Lys	Lys	Leu	Ser	Pro	Pro	Phe	Lys	Pro	Gln	Val	Thr
			100					105					110		
Ser	Glu	Thr	Asp	Thr	Arg	Tyr	Phe	Asp							
		115					120								

<210> 88
 <211> 121
 <212> PRT
 <213> *Caenorhabditis elegans*

Gln	Val	Leu	Asp	Asp	His	Asp	Tyr	Gly	Arg	Cys	Val	Asp	Trp	Trp	Gly
1				5					10					15	
Val	Gly	Val	Val	Met	Tyr	Glu	Met	Met	Cys	Gly	Arg	Leu	Pro	Phe	Tyr
			20					25					30		
Ser	Lys	Asp	His	Asn	Lys	Leu	Phe	Glu	Leu	Ile	Met	Ala	Gly	Asp	Leu
		35					40					45			
Arg	Phe	Pro	Ser	Lys	Leu	Ser	Gln	Glu	Ala	Arg	Thr	Leu	Leu	Thr	Gly
	50					55					60				
Leu	Leu	Val	Lys	Asp	Pro	Thr	Gln	Arg	Leu	Gly	Gly	Gly	Pro	Glu	Asp
65					70				75					80	
Ala	Leu	Glu	Ile	Cys	Arg	Ala	Asp	Phe	Phe	Arg	Thr	Val	Asp	Trp	Glu
				85					90					95	
Ala	Thr	Tyr	Arg	Lys	Glu	Ile	Glu	Pro	Pro	Tyr	Lys	Pro	Asn	Val	Gln
			100					105					110		
Ser	Glu	Thr	Asp	Thr	Ser	Tyr	Phe	Asp							
		115					120								

<210> 89
 <211> 66
 <212> PRT
 <213> *Homo sapiens*

Thr	Met	Asn	Glu	Phe	Glu	Tyr	Leu	Lys	Leu	Leu	Gly	Lys	Gly	Thr	Phe
1				5					10					15	
Gly	Lys	Val	Ile	Leu	Val	Lys	Glu	Lys	Ala	Thr	Gly	Arg	Tyr	Tyr	Ala
			20					25					30		
Met	Lys	Ile	Leu	Lys	Lys	Glu	Val	Ile	Val	Ala	Lys	Asp	Glu	Val	Ala
		35					40					45			
His	Thr	Leu	Thr	Glu	Asn	Arg	Val	Leu	Gln	Asn	Ser	Arg	His	Pro	Phe
	50					55					60				
Leu	Thr														
65															

<210> 90
 <211> 66
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 90

Thr Met Glu Asp Phe Asp Phe Leu Lys Val Leu Gly Lys Gly Thr Phe
1 5 10 15
Gly Lys Val Ile Leu Cys Lys Glu Lys Arg Thr Gln Lys Leu Tyr Ala
20 25 30
Ile Lys Ile Leu Lys Lys Asp Val Ile Ile Ala Arg Glu Glu Val Ala
35 40 45
His Thr Leu Thr Glu Asn Arg Val Leu Gln Arg Cys Lys His Pro Phe
50 55 60
Leu Thr
65

<210> 91

<211> 45

<212> PRT

<213> Homo sapiens

<400> 91

Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile Thr
1 5 10 15
Asp Phe Gly Leu Cys Lys Glu Gly Ile Lys Asp Gly Ala Thr Met Lys
20 25 30
Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val
35 40 45

<210> 92

<211> 45

<212> PRT

<213> Caenorhabditis elegans

<400> 92

Lys Leu Glu Asn Leu Leu Leu Asp Lys Asp Gly His Ile Lys Ile Ala
1 5 10 15
Asp Phe Gly Leu Cys Lys Glu Glu Ile Ser Phe Gly Asp Lys Thr Ser
20 25 30
Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val
35 40 45

<210> 93

<211> 57

<212> PRT

<213> Homo sapiens

<400> 93

Phe Leu Thr Ala Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys
1 5 10 15
Phe Val Met Glu Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser
20 25 30
Arg Glu Arg Val Phe Ser Glu Asp Arg Ala Arg Phe Tyr Gly Ala Glu
35 40 45
Ile Val Ser Ala Leu Asp Tyr Leu His

50

55

<210> 94

<211> 57

<212> PRT

<213> *Caenorhabditis elegans*

<400> 94

Tyr	Phe	Gln	Glu	Leu	Lys	Tyr	Ser	Phe	Gln	Glu	Gln	His	Tyr	Leu	Cys
1				5					10					15	
Phe	Val	Met	Gln	Phe	Ala	Asn	Gly	Gly	Glu	Leu	Phe	Thr	His	Val	Arg
			20					25					30		
Lys	Cys	Gly	Thr	Phe	Ser	Glu	Pro	Arg	Ala	Arg	Phe	Tyr	Gly	Ala	Glu
		35					40					45			
Ile	Val	Leu	Ala	Leu	Gly	Tyr	Leu	His							
	50						55								

<210> 95

<211> 59

<212> PRT

<213> *Homo sapiens*

<400> 95

Asn	Asn	Phe	Ser	Val	Ala	Gln	Cys	Gln	Leu	Met	Lys	Thr	Glu	Arg	Pro
1				5					10					15	
Arg	Pro	Asn	Thr	Phe	Ile	Ile	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile
			20					25					30		
Glu	Arg	Thr	Phe	His	Val	Glu	Thr	Pro	Glu	Glu	Arg	Glu	Glu	Trp	Ala
		35					40					45			
Thr	Ala	Ile	Gln	Thr	Val	Ala	Asp	Gly	Leu	Lys					
	50						55								

<210> 96

<211> 59

<212> PRT

<213> *Caenorhabditis elegans*

<400> 96

Ser	Thr	Phe	Ala	Ile	Phe	Tyr	Phe	Gln	Thr	Met	Leu	Phe	Glu	Lys	Pro
1				5					10					15	
Arg	Pro	Asn	Met	Phe	Met	Val	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile
			20					25					30		
Glu	Arg	Thr	Phe	Tyr	Ala	Glu	Ser	Ala	Glu	Val	Arg	Gln	Arg	Trp	Ile
		35					40					45			
His	Ala	Ile	Glu	Ser	Ile	Ser	Lys	Lys	Tyr	Lys					
	50						55								

<210> 97

<211> 33

<212> PRT

<213> *Homo sapiens*

<400> 97
 Leu Thr Ala Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys Phe
 1 5 10 15
 Val Met Glu Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser Arg
 20 25 30
 Glu

<210> 98
 <211> 33
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 98
 Leu Gln Glu Leu Lys Tyr Ser Phe Gln Thr Asn Asp Arg Leu Cys Phe
 1 5 10 15
 Val Met Glu Phe Ala Ile Gly Gly Asp Leu Tyr Tyr His Leu Asn Arg
 20 25 30
 Glu

<210> 99
 <211> 36
 <212> PRT
 <213> *Homo sapiens* or *Caenorhabditis elegans*

<400> 99
 Lys Leu Glu Asn Leu Leu Asp Lys Asp Gly His Ile Lys Ile Asp Phe
 1 5 10 15
 Gly Leu Cys Lys Glu Ile Gly Thr Phe Cys Gly Thr Pro Glu Tyr Leu
 20 25 30
 Ala Pro Glu Val
 35

<210> 100
 <211> 37
 <212> PRT
 <213> *Homo sapiens* or *Caenorhabditis elegans*

<400> 100
 Leu Lys Tyr Ser Phe Gln Leu Cys Phe Val Met Ala Asn Gly Gly Glu
 1 5 10 15
 Leu Phe His Phe Ser Glu Arg Ala Arg Phe Tyr Gly Ala Glu Ile Val
 20 25 30
 Ala Leu Tyr Leu His
 35

<210> 101
 <211> 29
 <212> PRT
 <213> *Homo sapiens* or *Caenorhabditis elegans*

<400> 101

Phe Gln Met Glu Pro Arg Pro Asn Phe Arg Cys Leu Gln Trp Thr Thr
1 5 10 15
Val Ile Glu Arg Thr Phe Glu Glu Arg Trp Ala Ile Lys
20 25

<210> 102

<211> 24

<212> PRT

<213> Homo sapiens or Caenorhabditis elegans

<400> 102

Leu Leu Lys Tyr Ser Phe Gln Thr Asp Arg Leu Cys Phe Val Met Glu
1 5 10 15
Ala Gly Gly Leu His Leu Arg Glu
20

<210> 103

<211> 366

<212> PRT

<213> Homo sapiens

<400> 103

Arg Gly Ala Ile Arg Ile Glu Lys Asn Ala Asp Leu Cys Tyr Leu Ser
1 5 10 15
Thr Val Asp Trp Ser Leu Ile Leu Asp Ala Val Ser Asn Asn Tyr Ile
20 25 30
Val Gly Asn Lys Pro Pro Lys Glu Cys Gly Asp Leu Cys Pro Gly Thr
35 40 45
Met Glu Glu Lys Pro Met Cys Glu Lys Thr Thr Ile Asn Asn Glu Tyr
50 55 60
Asn Tyr Arg Cys Trp Thr Thr Asn Arg Cys Gln Lys Met Cys Pro Ser
65 70 75 80
Thr Cys Gly Lys Arg Ala Cys Thr Glu Asn Asn Glu Cys Cys His Pro
85 90 95
Glu Cys Leu Gly Ser Cys Ser Ala Pro Asp Asn Asp Thr Ala Cys Val
100 105 110
Ala Cys Arg His Tyr Tyr Tyr Ala Gly Val Cys Val Pro Ala Cys Pro
115 120 125
Pro Asn Thr Tyr Arg Phe Glu Gly Trp Arg Cys Val Asp Arg Asp Phe
130 135 140
Cys Ala Asn Ile Leu Ser Ala Glu Ser Ser Asp Ser Glu Gly Phe Val
145 150 155 160
Ile His Asp Gly Glu Cys Met Gln Glu Cys Pro Ser Gly Phe Ile Arg
165 170 175
Asn Gly Ser Gln Ser Met Tyr Cys Ile Pro Cys Glu Gly Pro Cys Pro
180 185 190
Lys Val Cys Glu Glu Glu Lys Lys Thr Lys Thr Ile Asp Ser Val Thr
195 200 205
Ser Ala Gln Met Leu Gln Gly Cys Thr Ile Phe Lys Gly Asn Leu Leu
210 215 220

Ile	Asn	Ile	Arg	Arg	Gly	Asn	Asn	Ile	Ala	Ser	Glu	Leu	Glu	Asn	Phe
225					230					235					240
Met	Gly	Leu	Ile	Glu	Val	Val	Thr	Gly	Tyr	Val	Lys	Ile	Arg	His	Ser
				245					250					255	
His	Ala	Leu	Val	Ser	Leu	Ser	Phe	Leu	Lys	Asn	Leu	Arg	Leu	Ile	Leu
			260					265					270		
Gly	Glu	Glu	Gln	Leu	Glu	Gly	Asn	Tyr	Ser	Phe	Tyr	Val	Leu	Asp	Asn
		275					280					285			
Gln	Asn	Leu	Gln	Gln	Leu	Trp	Asp	Trp	Asp	His	Arg	Asn	Leu	Thr	Ile
	290					295				300					
Lys	Ala	Gly	Lys	Met	Tyr	Phe	Ala	Phe	Asn	Pro	Lys	Leu	Cys	Val	Ser
305				310					315					320	
Glu	Ile	Tyr	Arg	Met	Glu	Glu	Val	Thr	Gly	Thr	Lys	Gly	Arg	Gln	Ser
			325					330					335		
Lys	Gly	Asp	Ile	Asn	Thr	Arg	Asn	Asn	Gly	Glu	Arg	Ala	Ser	Cys	Glu
		340					345					350			
Ser	Asp	Val	Leu	His	Phe	Thr	Ser	Thr	Thr	Thr	Ser	Lys	Asn		
	355						360					365			

<210> 104
 <211> 370
 <212> PRT
 <213> Homo sapiens

<400> 104

Arg	Gly	Ser	Val	Arg	Ile	Glu	Lys	Asn	Asn	Glu	Leu	Cys	Tyr	Leu	Ala
1				5					10					15	
Thr	Ile	Asp	Trp	Ser	Arg	Ile	Leu	Asp	Ser	Val	Glu	Asp	Asn	Tyr	Ile
			20					25				30			
Val	Leu	Asn	Lys	Asp	Asp	Asn	Glu	Glu	Cys	Gly	Asp	Ile	Cys	Pro	Gly
	35					40					45				
Thr	Ala	Lys	Gly	Lys	Thr	Asn	Cys	Pro	Ala	Thr	Val	Ile	Asn	Gly	Gln
	50				55					60					
Phe	Val	Glu	Arg	Cys	Trp	Thr	His	Ser	His	Cys	Gln	Lys	Val	Cys	Pro
65				70					75					80	
Thr	Ile	Cys	Lys	Ser	His	Gly	Cys	Thr	Ala	Glu	Gly	Leu	Cys	Cys	His
			85					90					95		
Ser	Glu	Cys	Leu	Gly	Asn	Cys	Ser	Gln	Pro	Asp	Asp	Pro	Thr	Lys	Cys
		100					105					110			
Val	Ala	Cys	Arg	Asn	Phe	Tyr	Leu	Asp	Gly	Arg	Cys	Val	Glu	Thr	Cys
	115						120				125				
Pro	Pro	Pro	Tyr	Tyr	His	Phe	Gln	Asp	Trp	Arg	Cys	Val	Asn	Phe	Ser
	130				135					140					
Phe	Cys	Gln	Asp	Leu	His	His	Lys	Cys	Lys	Asn	Ser	Arg	Arg	Gln	Gly
145				150					155					160	
Cys	His	Gln	Tyr	Val	Ile	His	Asn	Asn	Lys	Cys	Ile	Pro	Glu	Cys	Pro
		165					170					175			
Ser	Gly	Tyr	Thr	Met	Asn	Ser	Ser	Asn	Leu	Leu	Cys	Thr	Pro	Cys	Leu
		180					185					190			
Gly	Pro	Cys	Pro	Lys	Val	Cys	His	Leu	Leu	Glu	Gly	Glu	Lys	Thr	Ile
	195					200					205				

Asp Ser Val Thr Ser Ala Gln Glu Leu Arg Gly Cys Thr Val Ile Asn
 210 215 220
 Gly Ser Leu Ile Ile Asn Ile Arg Gly Gly Asn Asn Leu Ala Ala Glu
 225 230 235 240
 Leu Glu Ala Asn Leu Gly Leu Ile Glu Glu Ile Ser Gly Tyr Leu Lys
 245 250 255
 Ile Arg Arg Ser Tyr Ala Leu Val Ser Leu Ser Phe Phe Arg Lys Leu
 260 265 270
 Arg Leu Ile Arg Gly Glu Thr Leu Glu Ile Gly Asn Tyr Ser Phe Tyr
 275 280 285
 Ala Leu Asp Asn Gln Asn Leu Arg Gln Leu Trp Asp Trp Ser Lys His
 290 295 300
 Asn Leu Thr Ile Thr Gln Gly Lys Leu Phe Phe His Tyr Asn Pro Lys
 305 310 315 320
 Leu Cys Leu Ser Glu Ile His Lys Met Glu Glu Val Ser Gly Thr Lys
 325 330 335
 Gly Arg Gln Glu Arg Asn Asp Ile Ala Leu Lys Thr Asn Gly Asp Gln
 340 345 350
 Ala Ser Cys Glu Asn Glu Leu Leu Lys Phe Ser Tyr Ile Arg Thr Ser
 355 360 365
 Phe Asp
 370

<210> 105

<211> 383

<212> PRT

<213> *Drosophila melanogaster*

<400> 105

Arg Gly Gly Val Arg Ile Glu Lys Asn His Lys Leu Cys Tyr Asp Arg
 1 5 10 15
 Thr Ile Asp Trp Leu Glu Ile Leu Ala Glu Asn Glu Ser Gln Leu Val
 20 25 30
 Val Leu Thr Glu Asn Gly Lys Glu Lys Glu Cys Ser Leu Ser Lys Cys
 35 40 45
 Pro Gly Glu Ile Arg Ile Glu Glu Gly His Asp Asn Thr Ala Ile Glu
 50 55 60
 Gly Glu Leu Asn Ala Ser Cys Gln Leu His Asn Asn Arg Arg Leu Cys
 65 70 75 80
 Trp Asn Ser Lys Leu Cys Gln Thr Lys Cys Pro Glu Lys Cys Arg Asn
 85 90 95
 Asn Cys Ile Asp Glu His Thr Cys Cys Ser Gln Asp Cys Leu Gly Gly
 100 105 110
 Cys Val Ile Asp Lys Asn Gly Asn Glu Ser Cys Ile Ser Cys Arg Asn
 115 120 125
 Val Ser Phe Asn Asn Ile Cys Met Asp Ser Cys Pro Lys Gly Tyr Tyr
 130 135 140
 Gln Phe Asp Ser Arg Cys Val Thr Ala Asn Glu Cys Ile Thr Leu Thr
 145 150 155 160
 Lys Phe Glu Thr Asn Ser Val Tyr Ser Gly Ile Pro Tyr Asn Gly Gln
 165 170 175

Cys	Ile	Thr	His	Cys	Pro	Thr	Gly	Tyr	Gln	Lys	Ser	Glu	Asn	Lys	Arg
			180						185				190		
Met	Cys	Glu	Pro	Cys	Pro	Gly	Gly	Lys	Cys	Asp	Lys	Glu	Cys	Ser	Ser
		195					200					205			
Gly	Leu	Ile	Asp	Ser	Leu	Glu	Arg	Ala	Arg	Glu	Phe	His	Gly	Cys	Thr
	210					215					220				
Ile	Ile	Thr	Gly	Thr	Glu	Pro	Leu	Thr	Ile	Ser	Ile	Lys	Arg	Glu	Ser
225					230				235					240	
Gly	Ala	His	Val	Met	Asp	Glu	Leu	Lys	Tyr	Gly	Leu	Ala	Ala	Val	His
			245					250						255	
Lys	Ile	Gln	Ser	Ser	Leu	Met	Val	His	Leu	Thr	Tyr	Gly	Leu	Lys	Ser
		260					265						270		
Leu	Lys	Phe	Phe	Gln	Ser	Leu	Thr	Glu	Ile	Ser	Gly	Asp	Pro	Pro	Met
	275						280					285			
Asp	Ala	Asp	Lys	Tyr	Ala	Leu	Tyr	Val	Leu	Asp	Asn	Arg	Asp	Leu	Asp
	290					295				300					
Glu	Leu	Trp	Gly	Pro	Asn	Gln	Thr	Val	Phe	Ile	Arg	Lys	Gly	Gly	Val
305					310				315					320	
Phe	Phe	His	Phe	Asn	Pro	Lys	Leu	Cys	Val	Ser	Thr	Ile	Asn	Gln	Leu
				325				330						335	
Leu	Pro	Met	Leu	Ala	Ser	Lys	Pro	Lys	Phe	Phe	Glu	Lys	Ser	Asp	Glu
		340					345					350			
Gly	Ala	Asp	Ser	Asn	Gly	Asn	Arg	Gly	Ser	Cys	Gly	Thr	Ala	Val	Leu
	355					360					365				
Asn	Val	Thr	Leu	Gln	Ser	Val	Gly	Ala	Asn	Ser	Ala	Ser	Leu	Asn	
	370					375					380				

<210> 106

<211> 381

<212> PRT

<213> Caenorhabditis elegans

<400> 106

Asn	Gly	Gly	Val	Arg	Ile	Ile	Asp	Asn	Arg	Lys	Leu	Cys	Tyr	Thr	Lys
1			5					10						15	
Thr	Ile	Asp	Trp	Lys	His	Leu	Ile	Thr	Ser	Ser	Ile	Asn	Asp	Val	Val
	20						25					30			
Val	Asp	Asn	Ala	Ala	Glu	Tyr	Ala	Val	Thr	Glu	Thr	Gly	Leu	Met	Cys
	35				40						45				
Pro	Arg	Gly	Ala	Cys	Glu	Glu	Asp	Lys	Gly	Glu	Ser	Lys	Cys	His	Tyr
	50				55					60					
Leu	Glu	Glu	Lys	Asn	Gln	Glu	Gln	Gly	Val	Glu	Arg	Val	Gln	Ser	Cys
65				70					75					80	
Trp	Ser	Asn	Thr	Thr	Cys	Gln	Lys	Ser	Cys	Ala	Tyr	Asp	Arg	Leu	Leu
		85					90						95		
Pro	Thr	Lys	Glu	Ile	Gly	Pro	Gly	Cys	Asp	Ala	Asn	Gly	Asp	Arg	Cys
	100						105					110			
His	Asp	Gln	Cys	Val	Gly	Gly	Cys	Glu	Arg	Val	Asn	Asp	Ala	Thr	Ala
	115					120						125			
Cys	His	Ala	Cys	Lys	Asn	Val	Tyr	His	Lys	Gly	Lys	Cys	Ile	Glu	Lys
	130					135					140				

Cys	Asp	Ala	His	Leu	Tyr	Leu	Leu	Leu	Gln	Arg	Arg	Cys	Val	Thr	Arg
145					150					155					160
Glu	Gln	Cys	Leu	Gln	Leu	Asn	Pro	Val	Leu	Ser	Asn	Lys	Thr	Val	Pro
			165						170						175
Ile	Lys	Ala	Thr	Ala	Gly	Leu	Cys	Ser	Asp	Lys	Cys	Pro	Asp	Gly	Tyr
		180						185					190		
Gln	Ile	Asn	Pro	Asp	Asp	His	Arg	Glu	Cys	Arg	Lys	Cys	Val	Gly	Lys
		195					200					205			
Cys	Glu	Ile	Val	Cys	Glu	Ile	Asn	His	Val	Ile	Asp	Thr	Phe	Pro	Lys
	210					215					220				
Ala	Gln	Ala	Ile	Arg	Leu	Cys	Asn	Ile	Ile	Asp	Gly	Asn	Leu	Thr	Ile
225					230					235					240
Glu	Ile	Arg	Gly	Lys	Gln	Asp	Ser	Gly	Met	Ala	Ser	Glu	Leu	Lys	Asp
			245						250						255
Ile	Phe	Ala	Asn	Ile	His	Thr	Ile	Thr	Gly	Tyr	Leu	Leu	Val	Arg	Gln
		260						265					270		
Ser	Ser	Pro	Phe	Ile	Ser	Leu	Asn	Met	Phe	Arg	Asn	Leu	Arg	Arg	Ile
		275					280					285			
Glu	Ala	Lys	Ser	Leu	Phe	Arg	Asn	Leu	Tyr	Ala	Ile	Thr	Val	Phe	Glu
	290					295					300				
Asn	Pro	Asn	Leu	Lys	Lys	Leu	Phe	Asp	Ser	Thr	Thr	Asp	Leu	Thr	Leu
305				310						315					320
Asp	Arg	Gly	Thr	Val	Ser	Ile	Ala	Asn	Asn	Lys	Met	Leu	Cys	Phe	Lys
			325						330					335	
Tyr	Ile	Lys	Gln	Leu	Met	Ser	Lys	Leu	Asn	Ile	Pro	Leu	Asp	Pro	Ile
		340						345					350		
Asp	Gln	Ser	Glu	Gly	Thr	Asn	Gly	Glu	Lys	Ala	Ile	Cys	Glu	Asp	Met
		355					360					365			
Ala	Ile	Asn	Val	Ser	Ile	Thr	Ala	Val	Asn	Ala	Asp	Ser			
	370					375					380				

<210> 107

<211> 370

<212> PRT

<213> Homo sapiens

<400> 107

Ala	Leu	Pro	Val	Ala	Val	Leu	Leu	Ile	Val	Gly	Gly	Leu	Val	Ile	Met
1				5					10					15	
Leu	Tyr	Val	Phe	His	Arg	Lys	Arg	Asn	Asn	Ser	Arg	Leu	Gly	Asn	Gly
		20						25					30		
Val	Leu	Tyr	Ala	Ser	Val	Asn	Pro	Glu	Tyr	Phe	Ser	Ala	Ala	Asp	Val
		35					40					45			
Tyr	Val	Pro	Asp	Glu	Trp	Glu	Val	Ala	Arg	Glu	Lys	Ile	Thr	Met	Ser
	50					55					60				
Arg	Glu	Leu	Gly	Gln	Gly	Ser	Phe	Gly	Met	Val	Tyr	Glu	Gly	Val	Ala
65					70				75						80
Lys	Gly	Val	Val	Lys	Asp	Glu	Pro	Glu	Thr	Arg	Val	Ala	Ile	Lys	Thr
			85						90					95	
Val	Asn	Glu	Ala	Ala	Ser	Met	Arg	Glu	Arg	Ile	Glu	Phe	Leu	Asn	Glu
		100						105					110		

Ala Ser Val Met Lys Glu Phe Asn Cys His His Val Val Arg Leu Leu
 115 120 125
 Gly Val Val Ser Gln Gly Gln Pro Thr Leu Val Ile Met Glu Leu Met
 130 135 140
 Thr Arg Gly Asp Leu Lys Ser Tyr Leu Arg Ser Leu Arg Pro Glu Met
 145 150 155 160
 Glu Asn Asn Pro Val Leu Ala Pro Pro Ser Leu Ser Lys Met Ile Gln
 165 170 175
 Met Ala Gly Glu Ile Ala Asp Gly Met Ala Tyr Leu Asn Ala Asn Lys
 180 185 190
 Phe Val His Arg Asp Leu Ala Ala Arg Asn Cys Met Val Ala Glu Asp
 195 200 205
 Phe Thr Val Lys Ile Gly Asp Phe Gly Met Thr Arg Asp Ile Tyr Glu
 210 215 220
 Thr Asp Tyr Tyr Arg Lys Gly Gly Lys Gly Leu Leu Pro Val Arg Trp
 225 230 235 240
 Met Ser Pro Glu Ser Leu Lys Asp Gly Val Phe Thr Thr Tyr Ser Asp
 245 250 255
 Val Trp Ser Phe Gly Val Val Leu Trp Glu Ile Ala Thr Leu Ala Glu
 260 265 270
 Gln Pro Tyr Gln Gly Leu Ser Asn Glu Gln Val Leu Arg Phe Val Met
 275 280 285
 Glu Gly Gly Leu Leu Asp Lys Pro Asp Asn Cys Pro Asp Met Leu Phe
 290 295 300
 Glu Leu Met Arg Met Cys Trp Gln Tyr Asn Pro Lys Met Arg Pro Ser
 305 310 315 320
 Phe Leu Glu Ile Ile Ser Ser Ile Lys Glu Glu Met Glu Pro Gly Phe
 325 330 335
 Arg Glu Val Ser Phe Tyr Tyr Ser Glu Glu Asn Lys Leu Pro Glu Pro
 340 345 350
 Glu Glu Leu Asp Leu Glu Pro Glu Asn Met Glu Ser Val Pro Leu Asp
 355 360 365
 Pro Ser
 370

<210> 108
 <211> 374
 <212> PRT
 <213> Homo sapiens

<400> 108
 Ile Gly Pro Leu Ile Phe Val Phe Leu Phe Ser Val Val Ile Gly Ser
 1 5 10 15
 Ile Tyr Leu Phe Leu Arg Lys Arg Gln Pro Asp Gly Pro Leu Gly Pro
 20 25 30
 Leu Tyr Ala Ser Ser Asn Pro Glu Tyr Leu Ser Ala Ser Asp Val Phe
 35 40 45
 Pro Cys Ser Val Tyr Val Pro Asp Glu Trp Glu Val Ser Arg Glu Lys
 50 55 60
 Ile Thr Leu Leu Arg Glu Leu Gly Gln Gly Ser Phe Gly Met Val Tyr
 65 70 75 80

Glu Gly Asn Ala Arg Asp Ile Ile Lys Gly Glu Ala Glu Thr Arg Val
 85 90 95
 Ala Val Lys Thr Val Asn Glu Ser Ala Ser Leu Arg Glu Arg Ile Glu
 100 105 110
 Phe Leu Asn Glu Ala Ser Val Met Lys Gly Phe Thr Cys His His Val
 115 120 125
 Val Arg Leu Leu Gly Val Val Ser Lys Gly Gln Pro Thr Leu Val Val
 130 135 140
 Met Glu Leu Met Ala His Gly Asp Leu Lys Ser Tyr Leu Arg Ser Leu
 145 150 155 160
 Arg Pro Glu Ala Glu Asn Asn Pro Gly Arg Pro Pro Pro Thr Leu Gln
 165 170 175
 Glu Met Ile Gln Met Ala Ala Glu Ile Ala Asp Gly Met Ala Tyr Leu
 180 185 190
 Asn Ala Lys Lys Phe Val His Arg Asp Leu Ala Ala Arg Asn Cys Met
 195 200 205
 Val Ala His Asp Phe Thr Val Lys Ile Gly Asp Phe Gly Met Thr Arg
 210 215 220
 Asp Ile Tyr Glu Thr Asp Tyr Tyr Arg Lys Gly Gly Lys Gly Leu Leu
 225 230 235 240
 Pro Val Arg Trp Met Ala Pro Glu Ser Leu Lys Asp Gly Val Phe Thr
 245 250 255
 Thr Ser Ser Asp Met Trp Ser Phe Gly Val Val Leu Trp Glu Ile Thr
 260 265 270
 Ser Leu Ala Glu Gln Pro Tyr Gln Gly Leu Ser Asn Glu Gln Val Leu
 275 280 285
 Lys Phe Val Met Asp Gly Gly Tyr Leu Asp Gln Pro Asp Asn Cys Pro
 290 295 300
 Glu Arg Val Thr Asp Leu Met Arg Met Cys Trp Gln Phe Asn Pro Lys
 305 310 315 320
 Met Arg Pro Thr Phe Leu Glu Ile Val Asn Leu Leu Lys Asp Asp Leu
 325 330 335
 His Pro Ser Phe Pro Glu Val Ser Phe Phe His Ser Glu Glu Asn Lys
 340 345 350
 Ala Pro Glu Ser Glu Glu Leu Glu Met Glu Phe Glu Asp Met Glu Asn
 355 360 365
 Val Pro Leu Asp Arg Ser
 370

<210> 109

<211> 384

<212> PRT

<213> *Drosophila melanogaster*

<400> 109

Gly Ile Gly Leu Ala Phe Leu Ile Val Ser Leu Phe Gly Tyr Val Cys
 1 5 10 15
 Tyr Leu His Lys Arg Lys Val Pro Ser Asn Asp Leu His Met Asn Thr
 20 25 30
 Glu Val Asn Pro Phe Tyr Ala Ser Met Gln Tyr Ile Pro Asp Asp Trp
 35 40 45

Ile	Tyr	Tyr	Tyr	Ile	Gln	Val	Arg	Tyr	Gly	Lys	Lys	Val	Lys	Ala	Leu	
			20					25					30			
Ser	Asp	Phe	Met	Gln	Leu	Asn	Pro	Glu	Tyr	Cys	Val	Asp	Asn	Lys	Tyr	
		35					40					45				
Asn	Ala	Asp	Asp	Trp	Glu	Leu	Arg	Gln	Asp	Asp	Val	Val	Leu	Gly	Gln	
		50				55					60					
Gln	Cys	Gly	Glu	Gly	Ser	Phe	Gly	Lys	Val	Tyr	Leu	Gly	Thr	Gly	Asn	
65					70					75					80	
Asn	Val	Val	Ser	Leu	Met	Gly	Asp	Arg	Phe	Gly	Pro	Cys	Ala	Ile	Lys	
			85						90					95		
Ile	Asn	Val	Asp	Asp	Pro	Ala	Ser	Thr	Glu	Asn	Leu	Asn	Tyr	Leu	Met	
		100						105					110			
Glu	Ala	Asn	Ile	Met	Lys	Asn	Phe	Lys	Thr	Asn	Phe	Ile	Val	Gln	Leu	
		115					120					125				
Tyr	Gly	Val	Ile	Ser	Thr	Val	Gln	Pro	Ala	Met	Val	Val	Met	Glu	Met	
		130				135					140					
Met	Asp	Leu	Gly	Asn	Leu	Arg	Asp	Tyr	Leu	Arg	Ser	Lys	Arg	Glu	Asp	
145					150					155					160	
Glu	Val	Phe	Asn	Glu	Thr	Asp	Cys	Asn	Phe	Phe	Asp	Ile	Ile	Pro	Arg	
			165						170					175		
Asp	Lys	Phe	His	Glu	Trp	Ala	Ala	Gln	Ile	Cys	Asp	Gly	Met	Ala	Tyr	
		180						185					190			
Leu	Glu	Ser	Leu	Lys	Phe	Cys	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Cys	
		195					200					205				
Met	Ile	Asn	Arg	Asp	Glu	Thr	Val	Lys	Ile	Gly	Asp	Phe	Gly	Met	Ala	
		210				215					220					
Arg	Asp	Leu	Phe	Tyr	His	Asp	Tyr	Tyr	Lys	Pro	Ser	Gly	Lys	Arg	Met	
225					230					235					240	
Met	Pro	Val	Arg	Trp	Met	Ser	Pro	Glu	Ser	Leu	Lys	Asp	Gly	Lys	Phe	
			245						250					255		
Asp	Ser	Lys	Ser	Asp	Val	Trp	Ser	Phe	Gly	Val	Val	Leu	Tyr	Glu	Met	
		260						265					270			
Val	Thr	Leu	Gly	Ala	Gln	Pro	Tyr	Ile	Gly	Leu	Ser	Asn	Asp	Glu	Val	
		275					280					285				
Leu	Asn	Tyr	Ile	Gly	Met	Ala	Arg	Lys	Val	Ile	Lys	Lys	Pro	Glu	Cys	
		290				295					300					
Cys	Glu	Asn	Tyr	Trp	Tyr	Lys	Val	Met	Lys	Met	Cys	Trp	Arg	Tyr	Ser	
305					310					315					320	
Pro	Arg	Asp	Arg	Pro	Thr	Phe	Leu	Gln	Leu	Val	His	Leu	Leu	Ala	Ala	
			325						330					335		
Glu	Ala	Ser	Pro	Glu	Phe	Arg	Asp	Leu	Ser	Phe	Val	Leu	Thr	Asp	Asn	
		340						345					350			
Gln	Met	Ile	Leu	Asp	Asp	Ser	Glu	Ala	Leu	Asp	Leu	Asp	Asp	Ile	Asp	
		355					360					365				
Asp	Thr	Asp	Met	Asn	Asp	Gln	Val	Val	Glu	Val	Ala					
		370				375					380					

<210> 111

<211> 103

<212> PRT

<213> Caenorhabditis elegans

<400> 111

Asn	Ile	Asp	Arg	Glu	Phe	Asp	Gln	Lys	Ala	Cys	Glu	Ser	Leu	Val	Lys
1				5					10					15	
Lys	Leu	Lys	Asp	Lys	Lys	Asn	Asp	Leu	Gln	Asn	Leu	Ile	Asp	Val	Val
			20					25					30		
Leu	Ser	Lys	Gly	Thr	Lys	Tyr	Thr	Gly	Cys	Ile	Thr	Ile	Pro	Arg	Thr
		35					40					45			
Leu	Asp	Gly	Arg	Leu	Gln	Val	His	Gly	Arg	Lys	Gly	Phe	Pro	His	Val
	50					55					60				
Val	Tyr	Gly	Lys	Leu	Trp	Arg	Phe	Asn	Glu	Met	Thr	Lys	Asn	Glu	Thr
65					70					75				80	
Arg	His	Val	Asp	His	Cys	Lys	His	Ala	Phe	Glu	Met	Lys	Ser	Asp	Met
			85						90					95	
Val	Cys	Val	Asn	Pro	Tyr	His									
			100												

<210> 112

<211> 104

<212> PRT

<213> Homo sapiens

<400> 112

Gly	Gly	Glu	Ser	Glu	Thr	Phe	Ala	Lys	Arg	Ala	Ile	Glu	Ser	Leu	Val
1				5					10					15	
Lys	Lys	Leu	Lys	Glu	Lys	Lys	Asp	Glu	Leu	Asp	Ser	Leu	Ile	Thr	Ala
			20					25					30		
Ile	Thr	Thr	Asn	Gly	Ala	His	Pro	Ser	Lys	Cys	Val	Thr	Ile	Gln	Arg
	35					40						45			
Thr	Leu	Asp	Gly	Arg	Leu	Gln	Val	Ala	Gly	Arg	Lys	Gly	Phe	Pro	His
	50					55					60				
Val	Ile	Tyr	Ala	Arg	Leu	Trp	Arg	Trp	Pro	Asp	Leu	His	Lys	Asn	Glu
65					70					75				80	
Leu	Lys	His	Val	Lys	Tyr	Cys	Gln	Tyr	Ala	Phe	Asp	Leu	Lys	Cys	Asp
			85						90					95	
Ser	Val	Cys	Val	Asn	Pro	Tyr	His								
			100												

<210> 113

<211> 205

<212> PRT

<213> Caenorhabditis elegans

<400> 113

Ile	Val	Tyr	Tyr	Glu	Lys	Asn	Leu	Gln	Ile	Gly	Glu	Lys	Lys	Cys	Ser
1				5					10					15	
Arg	Gly	Asn	Phe	His	Val	Asp	Gly	Gly	Phe	Ile	Cys	Ser	Glu	Asn	Arg
		20						25					30		
Tyr	Ser	Leu	Gly	Leu	Glu	Pro	Asn	Pro	Ile	Arg	Glu	Pro	Val	Ala	Phe
	35					40						45			
Lys	Val	Arg	Lys	Ala	Ile	Val	Asp	Gly	Ile	Arg	Phe	Ser	Tyr	Lys	Lys
	50					55					60				

Asp	Gly	Ser	Val	Trp	Leu	Gln	Asn	Arg	Met	Lys	Tyr	Pro	Val	Phe	Val	
65					70					75					80	
Thr	Ser	Gly	Tyr	Leu	Asp	Glu	Gln	Ser	Gly	Gly	Leu	Lys	Lys	Asp	Lys	
				85					90					95		
Val	His	Lys	Val	Tyr	Gly	Cys	Ala	Ser	Ile	Lys	Thr	Phe	Gly	Phe	Asn	
			100					105					110			
Val	Ser	Lys	Gln	Ile	Ile	Arg	Asp	Ala	Leu	Leu	Ser	Lys	Gln	Met	Ala	
		115					120					125				
Thr	Met	Tyr	Leu	Gln	Gly	Lys	Leu	Thr	Pro	Met	Asn	Tyr	Ile	Tyr	Glu	
	130					135					140					
Lys	Lys	Thr	Gln	Glu	Glu	Leu	Arg	Arg	Glu	Ala	Thr	Arg	Thr	Thr	Asp	
145				150					155						160	
Ser	Leu	Ala	Lys	Tyr	Cys	Cys	Val	Arg	Val	Ser	Phe	Cys	Lys	Gly	Phe	
			165						170					175		
Gly	Glu	Ala	Tyr	Pro	Glu	Arg	Pro	Ser	Ile	His	Asp	Cys	Pro	Val	Trp	
			180					185					190			
Ile	Glu	Leu	Lys	Ile	Asn	Ile	Ala	Tyr	Asp	Phe	Met	Asp				
	195						200					205				

<210> 114
 <211> 212
 <212> PRT
 <213> Homo sapiens

<400> 114																
Ile	Ala	Tyr	Phe	Glu	Met	Asp	Val	Gln	Val	Gly	Glu	Thr	Phe	Lys	Val	
1				5					10					15		
Pro	Ser	Ser	Cys	Pro	Ile	Val	Thr	Val	Asp	Gly	Tyr	Val	Asp	Pro	Ser	
			20					25					30			
Gly	Gly	Asp	Arg	Phe	Cys	Leu	Gly	Gln	Leu	Ser	Asn	Val	His	Arg	Thr	
		35					40					45				
Glu	Ala	Ile	Glu	Arg	Ala	Arg	Leu	His	Ile	Gly	Lys	Gly	Val	Gln	Leu	
	50					55				60						
Glu	Cys	Lys	Gly	Glu	Gly	Asp	Val	Trp	Val	Arg	Cys	Leu	Ser	Asp	His	
65				70					75					80		
Ala	Val	Phe	Val	Gln	Ser	Tyr	Tyr	Leu	Asp	Arg	Glu	Ala	Gly	Arg	Ala	
			85					90					95			
Pro	Gly	Asp	Ala	Val	His	Lys	Ile	Tyr	Pro	Ser	Ala	Tyr	Ile	Lys	Val	
		100					105						110			
Phe	Asp	Leu	Arg	Gln	Cys	His	Arg	Gln	Met	Gln	Gln	Gln	Ala	Ala	Thr	
	115						120					125				
Ala	Gln	Ala	Ala	Ala	Ala	Ala	Gln	Ala	Ala	Ala	Val	Ala	Gly	Asn	Ile	
	130					135					140					
Pro	Gly	Pro	Gly	Ser	Val	Gly	Gly	Ile	Ala	Pro	Ala	Ile	Ser	Leu	Ser	
145				150					155					160		
Ala	Ala	Ala	Gly	Ile	Gly	Val	Asp	Asp	Leu	Arg	Arg	Leu	Cys	Ile	Leu	
			165					170					175			
Arg	Met	Ser	Phe	Val	Lys	Gly	Trp	Gly	Pro	Asp	Tyr	Pro	Arg	Gln	Ser	
		180					185						190			
Ile	Lys	Glu	Thr	Pro	Cys	Trp	Ile	Glu	Ile	His	Leu	His	Arg	Ala	Leu	
	195						200					205				

Gln Leu Leu Asp
210

<210> 115
<211> 50
<212> PRT
<213> *Caenorhabditis elegans*

<220>
<221> VARIANT
<222> (1)...(50)
<223> Xaa = Any Amino Acid

<400> 115
Leu Cys Gly Xaa Xaa Leu Val Glu Ala Leu Xaa Xaa Val Cys Gly Xaa
1 5 10 15
Arg Gly Phe Phe Tyr Thr Pro Lys Thr Arg Arg Lys Arg Gly Ile Val
20 25 30
Glu Gln Cys Cys Xaa Xaa Xaa Cys Xaa Xaa Xaa Gln Leu Glu Xaa Tyr
35 40 45
Cys Asn
50

<210> 116
<211> 39
<212> PRT
<213> *Caenorhabditis elegans*

<400> 116
Leu Cys Gly Arg His Leu Ala Asp Ala Leu Tyr Phe Val Cys Gly Asn
1 5 10 15
Arg Gly Phe Gly Ile Val Glu Glu Cys Cys His Asn Pro Cys Thr Leu
20 25 30
Tyr Gln Leu Glu Asn Tyr Cys
35

<210> 117
<211> 112
<212> PRT
<213> *Caenorhabditis elegans*

<400> 117
Met Asn Ser Val Phe Thr Ile Ile Phe Val Leu Cys Ala Leu Gln Val
1 5 10 15
Ala Ala Ser Phe Arg Gln Ser Phe Gly Pro Ser Met Ser Glu Glu Ser
20 25 30
Ala Ser Met Gln Leu Leu Arg Glu Leu Gln His Asn Met Met Glu Ser
35 40 45
Ala His Arg Pro Met Pro Arg Ala Arg Arg Val Pro Ala Pro Gly Glu
50 55 60
Thr Arg Ala Cys Gly Arg Lys Leu Ile Ser Leu Val Met Ala Val Cys

65		70		75		80									
Gly	Asp	Leu	Cys	Asn	Pro	Gln	Glu	Gly	Lys	Asp	Ile	Ala	Thr	Glu	Cys
		85						90						95	
Cys	Gly	Asn	Gln	Cys	Ser	Asp	Asp	Tyr	Ile	Arg	Ser	Ala	Cys	Cys	Pro
		100						105						110	

<210> 118
 <211> 106
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 118
Met Phe Ser Phe Phe Thr Tyr Phe Leu Leu Ser Ala Leu Leu Leu Ser
1 5 10 15
Ala Ser Cys Arg Gln Pro Ser Met Asp Thr Ser Lys Ala Asp Arg Ile
20 25 30
Leu Arg Glu Ile Glu Met Glu Thr Glu Leu Glu Asn Gln Leu Ser Arg
35 40 45
Ala Arg Arg Val Pro Ala Gly Glu Val Arg Ala Cys Gly Arg Arg Leu
50 55 60
Leu Leu Phe Val Trp Ser Thr Cys Gly Glu Pro Cys Thr Pro Gln Glu
65 70 75 80
Asp Met Asp Ile Ala Thr Val Cys Cys Thr Thr Gln Cys Thr Pro Ser
85 90 95
Tyr Ile Lys Gln Ala Cys Cys Pro Glu Lys
100 105

<210> 119
 <211> 105
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 119
Met Pro Pro Ile Ile Leu Val Phe Phe Leu Val Leu Ile Pro Ala Ser
1 5 10 15
Gln Gln Tyr Pro Phe Ser Leu Glu Ser Leu Asn Asp Gln Ile Ile Asn
20 25 30
Glu Glu Val Ile Glu Tyr Met Leu Glu Asn Ser Ile Arg Ser Ser Arg
35 40 45
Thr Arg Arg Val Pro Asp Glu Lys Lys Ile Tyr Arg Cys Gly Arg Arg
50 55 60
Ile His Ser Tyr Val Phe Ala Val Cys Gly Lys Ala Cys Glu Ser Asn
65 70 75 80
Thr Glu Val Asn Ile Ala Ser Lys Cys Cys Arg Glu Glu Cys Thr Asp
85 90 95
Asp Phe Ile Arg Lys Gln Cys Cys Pro
100 105

<210> 120
 <211> 118
 <212> PRT

<213> Caenorhabditis elegans

<400> 120

```
Met Ile Val Thr Leu Ile Val Phe Leu Val Ile Gly Leu Gln Met Ala
 1             5             10             15
His Leu Ser Gln Val Ser Gly Asn Asn Glu Asn Gly Phe Leu Asn Pro
      20             25             30
Phe Asp Leu Ser Gln Trp Ser Glu Glu Ile Leu His Arg Gln Tyr His
      35             40             45
His His His His His His His Gly Asn Arg Ala Arg Arg Thr Leu Glu
      50             55             60
Thr Glu Lys Ile Tyr Arg Cys Gly Arg Lys Leu Tyr Thr Asp Val Leu
65             70             75             80
Ser Ala Cys Asn Gly Pro Cys Glu Pro Gly Thr Glu Gln Asp Leu Ser
      85             90             95
Lys Leu Cys Cys Gly Asn Gln Cys Thr Phe Val Glu Ile Arg Lys Ala
      100            105            110
Cys Cys Ala Asp Lys Leu
      115
```

<210> 121

<211> 106

<212> PRT

<213> Caenorhabditis elegans

<400> 121

```
Met Asn Ala Ile Ile Phe Cys Leu Leu Phe Thr Thr Val Thr Ala Thr
 1             5             10             15
Tyr Glu Val Phe Gly Lys Gly Ile Glu His Arg Asn Glu His Leu Ile
      20             25             30
Ile Asn Gln Leu Asp Ile Ile Pro Val Glu Ser Thr Pro Thr Pro Asn
      35             40             45
Arg Ala Ser Arg Val Gln Lys Arg Leu Cys Gly Arg Arg Leu Ile Leu
      50             55             60
Phe Met Leu Ala Thr Cys Gly Glu Cys Asp Thr Asp Ser Ser Glu Asp
65             70             75             80
Leu Ser His Ile Cys Cys Ile Lys Gln Cys Asp Val Gln Asp Ile Ile
      85             90             95
Arg Val Cys Cys Pro Asn Ser Phe Arg Lys
      100            105
```

<210> 122

<211> 107

<212> PRT

<213> Caenorhabditis elegans

<400> 122

```
Met Lys Leu Ser Val Val Leu Ala Leu Phe Ile Ile Phe Gln Leu Gly
 1             5             10             15
Ala Ala Ser Leu Met Arg Asn Trp Met Phe Asp Phe Glu Lys Glu Leu
      20             25             30
```

Glu	His	Asp	Tyr	Asp	Asp	Ser	Glu	Ile	Gly	Phe	His	Asn	Ile	His	Ser
	35						40					45			
Leu	Met	Ala	Arg	Ser	Arg	Arg	Gly	Asp	Lys	Val	Lys	Ile	Cys	Gly	Thr
	50					55					60				
Lys	Val	Leu	Lys	Met	Val	Met	Val	Met	Cys	Gly	Gly	Glu	Cys	Ser	Ser
65					70					75				80	
Thr	Asn	Glu	Asn	Ile	Ala	Thr	Glu	Cys	Cys	Glu	Lys	Met	Cys	Thr	Met
			85					90						95	
Glu	Asp	Ile	Thr	Thr	Lys	Cys	Cys	Pro	Ser	Arg					
			100					105							

<210> 123
 <211> 73
 <212> PRT
 <213> Caenorhabditis elegans

Met	Lys	Leu	Leu	His	Ile	Phe	Ile	Ile	Phe	Leu	Leu	Phe	Gln	Ser	Cys
1				5					10				15		
Ser	Asn	Lys	Met	Cys	Gln	Tyr	Ser	Lys	Lys	Lys	Tyr	Lys	Ile	Cys	Gly
		20						25					30		
Val	Arg	Ala	Leu	Lys	His	Met	Lys	Val	Tyr	Cys	Thr	Arg	Gly	Met	Thr
	35					40						45			
Arg	Asp	Tyr	Gly	Lys	Leu	Leu	Val	Thr	Cys	Cys	Ser	Lys	Gly	Cys	Asn
	50				55						60				
Ala	Ile	Asp	Ile	Gln	Arg	Ile	Cys	Leu							
65					70										

<210> 124
 <211> 109
 <212> PRT
 <213> Caenorhabditis elegans

Met	Tyr	Trp	Phe	Arg	Gln	Val	Tyr	Arg	Pro	Ser	Phe	Phe	Phe	Gly	Phe
1				5					10					15	
Leu	Ala	Ile	Leu	Leu	Leu	Ser	Ser	Pro	Thr	Pro	Ser	Asp	Ala	Ser	Ile
		20						25					30		
Arg	Leu	Cys	Gly	Ser	Arg	Leu	Thr	Thr	Thr	Leu	Leu	Ala	Val	Cys	Arg
	35					40						45			
Asn	Gln	Leu	Cys	Thr	Gly	Leu	Thr	Ala	Phe	Lys	Arg	Ser	Ala	Asp	Gln
	50					55					60				
Ser	Tyr	Ala	Pro	Thr	Thr	Arg	Asp	Leu	Phe	His	Ile	His	His	Gln	Gln
65					70				75					80	
Lys	Arg	Gly	Gly	Ile	Ala	Thr	Glu	Cys	Cys	Glu	Lys	Arg	Cys	Ser	Phe
				85					90					95	
Ala	Tyr	Leu	Lys	Thr	Phe	Cys	Cys	Asn	Gln	Asp	Asp	Asn			
			100					105							

<210> 125
 <211> 110

<212> PRT

<213> Homo sapiens

<400> 125

Met	Ala	Leu	Trp	Met	Arg	Leu	Leu	Pro	Leu	Leu	Ala	Leu	Leu	Ala	Leu
1				5				10						15	
Trp	Gly	Pro	Asp	Pro	Ala	Ala	Ala	Phe	Val	Asn	Gln	His	Leu	Cys	Gly
			20					25					30		
Ser	His	Leu	Val	Glu	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Glu	Arg	Gly	Phe
			35				40					45			
Phe	Tyr	Thr	Pro	Lys	Thr	Arg	Arg	Glu	Ala	Glu	Asp	Leu	Gln	Val	Gly
	50					55					60				
Gln	Val	Glu	Leu	Gly	Gly	Gly	Pro	Gly	Ala	Gly	Ser	Leu	Gln	Pro	Leu
65					70					75				80	
Ala	Leu	Glu	Gly	Ser	Leu	Gln	Lys	Arg	Gly	Ile	Val	Glu	Gln	Cys	Cys
				85					90					95	
Thr	Ser	Ile	Cys	Ser	Leu	Tyr	Gln	Leu	Glu	Asn	Tyr	Cys	Asn		
			100					105					110		

<210> 126

<211> 46

<212> PRT

<213> Caenorhabditis elegans

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 126

Ala	Cys	Gly	Arg	Arg	Leu	Leu	Leu	Phe	Val	Trp	Ser	Thr	Cys	Gly	Glu
1				5				10						15	
Pro	Cys	Thr	Xaa	Xaa	Xaa	Gln	Glu	Asp	Met	Asp	Ile	Ala	Thr	Val	Cys
			20					25					30		
Cys	Thr	Thr	Gln	Cys	Thr	Pro	Ser	Tyr	Ile	Lys	Gln	Ala	Cys		
			35				40					45			

<210> 127

<211> 46

<212> PRT

<213> Caenorhabditis elegans

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 127

Ala	Cys	Gly	Arg	Lys	Leu	Ile	Ser	Leu	Val	Met	Ala	Val	Cys	Gly	Asp
1				5				10						15	
Leu	Cys	Asn	Xaa	Xaa	Xaa	Gln	Glu	Gly	Lys	Asp	Ile	Ala	Thr	Glu	Cys

	20		25		30
Cys Gly Asn Gln Cys Ser Asp Asp Tyr Ile Arg Ser Ala Cys					
	35		40		45

<210> 128
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

Arg Cys Gly Arg Arg Ile His Ser Tyr Val Phe Ala Val Cys Gly Lys					
1	5		10		15
Ala Cys Glu Xaa Xaa Xaa Ser Thr Glu Val Asn Ile Ala Ser Lys Cys					
	20		25		30
Cys Arg Glu Glu Cys Thr Asp Asp Phe Ile Arg Lys Gln Cys					
	35		40		45

<210> 129
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

Arg Cys Gly Arg Lys Leu Tyr Thr Asp Val Leu Ser Ala Cys Asn Gly					
1	5		10		15
Pro Cys Glu Xaa Xaa Xaa Gly Thr Glu Gln Asp Leu Ser Lys Leu Cys					
	20		25		30
Cys Gly Asn Gln Cys Thr Phe Asx Glu Ile Arg Lys Ala Cys					
	35		40		45

<210> 130
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 130

Ile	Cys	Gly	Thr	Lys	Asx	Leu	Lys	Met	Val	Met	Val	Met	Cys	Gly	Gly
1				5					10					15	
Glu	Cys	Ser	Xaa	Xaa	Xaa	Ser	Thr	Asn	Glu	Asn	Ile	Ala	Thr	Glu	Cys
			20					25						30	
Cys	Glu	Lys	Met	Cys	Thr	Met	Glu	Asp	Ile	Thr	Thr	Lys	Cys		
		35					40					45			

<210> 131
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

Leu	Cys	Gly	Arg	Arg	Leu	Ile	Leu	Phe	Met	Leu	Ala	Thr	Cys	Gly	Glu
1				5					10					15	
Cys	Asp	Thr	Xaa	Xaa	Xaa	Asp	Ser	Ser	Glu	Asp	Leu	Ser	His	Ile	Cys
			20					25					30		
Cys	Ile	Lys	Gln	Cys	Asp	Val	Gln	Asp	Ile	Ile	Arg	Val	Cys		
		35					40					45			

<210> 132
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

Leu	Cys	Gly	Ser	His	Leu	Val	Glu	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Glu
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Leu	Gln	Lys	Arg	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	Thr	Ser	Ile	Cys	Ser	Leu	Tyr	Gln	Leu	Glu	Asn	Tyr	Cys		
		35					40					45			

<210> 133
 <211> 46
 <212> PRT
 <213> Rabbit

<220>
 <221> VARIANT
 <222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 133

Leu	Cys	Gly	Ser	His	Leu	Val	Glu	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Glu
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Thr	Pro	Lys	Ser	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	Thr	Ser	Ile	Cys	Ser	Leu	Tyr	Gln	Leu	Glu	Asn	Tyr	Cys		
	35						40					45			

<210> 134

<211> 46

<212> PRT

<213> *Xenopus laevis*

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 134

Leu	Cys	Gly	Ser	His	Leu	Val	Glu	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Asp
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Lys	Met	Lys	Arg	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	His	Ser	Thr	Cys	Ser	Leu	Phe	Gln	Leu	Glu	Ser	Tyr	Cys		
	35						40					45			

<210> 135

<211> 46

<212> PRT

<213> *Xenopus laevis*

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 135

Leu	Cys	Gly	Ser	His	Leu	Val	Glu	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Asp
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Lys	Met	Lys	Arg	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	His	Ser	Thr	Cys	Ser	Leu	Phe	Gln	Leu	Glu	Asn	Tyr	Cys		
	35						40					45			

<210> 136

<211> 46

<212> PRT

<213> Alligator

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 136

Leu	Cys	Gly	Ser	His	Leu	Val	Asp	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Glu
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Ser	Pro	Lys	Gly	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	His	Asn	Thr	Cys	Ser	Leu	Tyr	Gln	Leu	Glu	Asn	Tyr	Cys		
		35					40					45			

<210> 137

<211> 46

<212> PRT

<213> Elephant fish

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 137

Leu	Cys	Gly	Ser	His	Leu	Val	Asp	Ala	Leu	Tyr	Phe	Val	Cys	Gly	Glu
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Pro	Lys	Gln	Ile	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	His	Asn	Thr	Cys	Ser	Leu	Val	Asn	Leu	Glu	Gly	Tyr	Cys		
		35					40					45			

<210> 138

<211> 46

<212> PRT

<213> Bos taurus

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 138

Leu	Cys	Gly	Ala	Glu	Leu	Val	Asp	Ala	Leu	Gln	Phe	Val	Cys	Gly	Asp
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Ala	Pro	Gln	Thr	Gly	Ile	Val	Asp	Glu	Cys
			20					25					30		
Cys	Phe	Arg	Ser	Cys	Asp	Leu	Arg	Arg	Leu	Glu	Met	Tyr	Cys		
		35					40					45			

<210> 139

<211> 46

<212> PRT
<213> Canis

<220>
<221> VARIANT
<222> (1)...(46)
<223> Xaa = Any Amino Acid

<400> 139
Leu Cys Gly Ala Glu Leu Val Asp Ala Leu Gln Phe Val Cys Gly Asp
1 5 10 15
Arg Gly Phe Xaa Xaa Xaa Ala Pro Gln Thr Gly Ile Val Asp Glu Cys
20 25 30
Cys Phe Arg Ser Cys Asp Leu Arg Arg Leu Glu Met Tyr Cys
35 40 45

<210> 140
<211> 46
<212> PRT
<213> Horse

<220>
<221> VARIANT
<222> (1)...(46)
<223> Xaa = Any Amino Acid

<400> 140
Leu Cys Gly Gly Glu Leu Val Asp Thr Leu Gln Phe Val Cys Gly Asp
1 5 10 15
Arg Gly Phe Xaa Xaa Xaa Arg Arg Ser Arg Gly Ile Val Glu Glu Cys
20 25 30
Cys Phe Arg Ser Cys Asp Leu Ala Leu Leu Glu Thr Tyr Cys
35 40 45

<210> 141
<211> 46
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> (1)...(46)
<223> Xaa = Any Amino Acid

<400> 141
Leu Cys Gly Gly Glu Leu Val Asp Thr Leu Gln Phe Val Cys Gly Asp
1 5 10 15
Arg Gly Phe Xaa Xaa Xaa Arg Arg Ser Arg Gly Ile Val Glu Glu Cys
20 25 30
Cys Phe Arg Ser Cys Asp Leu Ala Leu Leu Glu Thr Tyr Cys
35 40 45

<210> 142
 <211> 46
 <212> PRT
 <213> Amphioxus

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 142
 Leu Cys Gly Ser Thr Leu Ala Asp Val Leu Ser Phe Val Cys Gly Asn
 1 5 10 15
 Arg Gly Tyr Xaa Xaa Xaa Arg Arg Arg Arg Gly Leu Val Glu Glu Cys
 20 25 30
 Cys Tyr Asn Val Cys Asp Tyr Ser Gln Leu Glu Ser Tyr Cys
 35 40 45

<210> 143
 <211> 46
 <212> PRT
 <213> Locust

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 143
 Tyr Cys Gly Glu Lys Leu Ser Asn Ala Leu Lys Leu Val Cys Arg Gly
 1 5 10 15
 Asn Tyr Asn Xaa Xaa Xaa Arg Arg Thr Arg Gly Val Phe Asp Glu Cys
 20 25 30
 Cys Arg Lys Ser Cys Ser Ile Ser Glu Leu Gln Thr Tyr Cys
 35 40 45

<210> 144
 <211> 46
 <212> PRT
 <213> Bommo

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 144
 Tyr Cys Gly Arg His Leu Ala Arg Thr Leu Ala Asp Leu Cys Trp Glu
 1 5 10 15
 Ala Gly Val Xaa Xaa Xaa Arg Gly Lys Arg Gly Ile Val Asp Glu Cys
 20 25 30

Cys Leu Arg Pro Cys Ser Val Asp Val Leu Leu Ser Tyr Cys
 35 40 45

<210> 145
 <211> 46
 <212> PRT
 <213> Bommo

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 145
 Tyr Cys Gly Arg His Leu Ala Asp Thr Leu Ala Asp Leu Cys Phe Gly
 1 5 10 15
 Val Glu Lys Xaa Xaa Xaa Arg Gly Lys Arg Gly Val Val Asp Glu Cys
 20 25 30
 Cys Phe Arg Pro Cys Thr Leu Asp Val Leu Leu Ser Tyr Cys
 35 40 45

<210> 146
 <211> 46
 <212> PRT
 <213> Horn worm

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 146
 Ile Cys Gly Arg His Leu Ala Arg Thr Leu Ala Asp Leu Cys Pro Asn
 1 5 10 15
 Val Glu Tyr Xaa Xaa Xaa Gly Lys Arg Ala Gly Val Ala Asp Asp Cys
 20 25 30
 Cys Asx Asn Ser Cys Thr Met Asp Val Leu Leu Ser Tyr Cys
 35 40 45

<210> 147
 <211> 46
 <212> PRT
 <213> Bombyx mori

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 147
 Tyr Cys Gly Arg Arg Leu Ala Thr Met Leu Ser Phe Val Cys Asp Asn

1		5		10		15									
Gln	Tyr	Gln	Xaa	Xaa	Xaa	Gly	Lys	Arg	Gln	Gly	Ile	Ala	Glu	Glu	Cys
		20						25					30		
Cys	Asn	Lys	Pro	Cys	Thr	Glu	Asn	Glu	Leu	Leu	Gly	Tyr	Cys		
		35					40					45			

<210> 148
 <211> 46
 <212> PRT
 <213> Bombyx mori

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 148
Tyr Cys Gly Arg Arg Leu Ala Thr Met Leu Leu Tyr Val Cys Asp Asn
1 5 10 15
Gln Tyr Gln Xaa Xaa Xaa Gly Lys Arg Gln Gly Ile Val Glu Glu Cys
20 25 30
Cys Asn Lys Pro Cys Thr Glu Asn Glu Leu Leu Gly Tyr Cys
35 40 45

<210> 149
 <211> 46
 <212> PRT
 <213> Bombys mori

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 149
Tyr Cys Gly Arg Arg Leu Ala Ile Met Leu Ser Tyr Leu Cys Asp Asn
1 5 10 15
Gln Tyr Leu Xaa Xaa Xaa Gly Lys Arg Gln Gly Ile Ala Glu Glu Cys
20 25 30
Cys Asn Lys Pro Cys Thr Glu Asp Glu Leu Leu Gly Tyr Cys
35 40 45

<210> 150
 <211> 46
 <212> PRT
 <213> Caenorhabditis elegans

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 150
 Leu Cys Gly Ser Arg Leu Thr Thr Thr Leu Leu Ala Val Cys Arg Asn
 1 5 10 15
 Gln Leu Cys Xaa Xaa Xaa Gln Lys Arg Gly Gly Ile Ala Thr Glu Cys
 20 25 30
 Cys Glu Lys Arg Cys Ser Phe Ala Tyr Leu Lys Thr Phe Cys
 35 40 45

<210> 151
 <211> 46
 <212> PRT
 <213> Moi 3

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 151
 Leu Cys Gly Ser Thr Leu Ala Asn Met Val Gln Trp Leu Cys Ser Thr
 1 5 10 15
 Tyr Thr Thr Xaa Xaa Xaa Glu Ser Arg Pro Ser Ile Val Cys Glu Cys
 20 25 30
 Cys Phe Asn Gln Cys Thr Val Gln Glu Leu Leu Ala Tyr Cys
 35 40 45

<210> 152
 <211> 46
 <212> PRT
 <213> Homo sapiens

<220>
 <221> VARIANT
 <222> (1)...(46)
 <223> Xaa = Any Amino Acid

<400> 152
 Leu Cys Gly Arg Glu Leu Val Arg Ala Gln Ile Ala Ile Cys Gly Met
 1 5 10 15
 Ser Thr Trp Xaa Xaa Xaa Arg Pro Tyr Val Ala Leu Phe Glu Lys Cys
 20 25 30
 Cys Leu Ile Gly Cys Thr Lys Arg Ser Leu Ala Lys Tyr Cys
 35 40 45

<210> 153
 <211> 46
 <212> PRT
 <213> Homo sapiens

<220>
 <221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 153

Leu	Cys	Gly	His	His	Phe	Val	Arg	Ala	Leu	Val	Arg	Val	Cys	Gly	Gly
1				5					10					15	
Pro	Arg	Trp	Xaa	Xaa	Xaa	Ala	Ala	Ala	Thr	Asn	Pro	Ala	Arg	Tyr	Cys
			20					25					30		
Cys	Leu	Ser	Gly	Cys	Thr	Gln	Gln	Asp	Leu	Leu	Thr	Leu	Cys		
		35					40					45			

<210> 154

<211> 541

<212> PRT

<213> Caenorhabditis elegans

<400> 154

Met	Ser	Met	Thr	Ser	Leu	Ser	Thr	Lys	Ser	Arg	Arg	Gln	Glu	Asp	Val
1				5					10					15	
Val	Ile	Glu	Gly	Trp	Leu	His	Lys	Lys	Gly	Glu	His	Ile	Arg	Asn	Trp
			20					25					30		
Arg	Pro	Arg	Tyr	Phe	Met	Ile	Phe	Asn	Asp	Gly	Ala	Leu	Leu	Gly	Phe
		35					40					45			
Arg	Ala	Lys	Pro	Lys	Glu	Gly	Gln	Pro	Phe	Pro	Glu	Pro	Leu	Asn	Asp
	50					55				60					
Phe	Met	Ile	Lys	Asp	Ala	Ala	Thr	Met	Leu	Phe	Glu	Lys	Pro	Arg	Pro
65					70				75					80	
Asn	Met	Phe	Met	Val	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile	Glu	Arg
			85					90					95		
Thr	Phe	Tyr	Ala	Glu	Ser	Ala	Glu	Val	Arg	Gln	Arg	Trp	Ile	His	Ala
			100					105					110		
Ile	Glu	Ser	Ile	Ser	Lys	Lys	Tyr	Lys	Gly	Thr	Asn	Ala	Asn	Pro	Gln
		115					120					125			
Glu	Glu	Leu	Met	Glu	Thr	Asn	Gln	Gln	Pro	Lys	Ile	Asp	Glu	Asp	Ser
	130					135					140				
Glu	Phe	Ala	Gly	Ala	Ala	His	Ala	Ile	Met	Gly	Gln	Pro	Ser	Ser	Gly
145					150					155					160
His	Gly	Asp	Asn	Cys	Ser	Ile	Asp	Phe	Arg	Ala	Ser	Met	Ile	Ser	Ile
			165					170					175		
Ala	Asp	Thr	Ser	Glu	Ala	Ala	Lys	Arg	Asp	Lys	Ile	Thr	Met	Glu	Asp
		180						185					190		
Phe	Asp	Phe	Leu	Lys	Val	Leu	Gly	Lys	Gly	Thr	Phe	Gly	Lys	Val	Ile
		195					200					205			
Leu	Cys	Lys	Glu	Lys	Arg	Thr	Gln	Lys	Leu	Tyr	Ala	Ile	Lys	Ile	Leu
	210					215					220				
Lys	Lys	Asp	Val	Ile	Ile	Ala	Arg	Glu	Glu	Val	Ala	His	Thr	Leu	Thr
225					230					235				240	
Glu	Asn	Arg	Val	Leu	Gln	Arg	Cys	Lys	His	Pro	Phe	Leu	Thr	Glu	Leu
			245						250					255	
Lys	Tyr	Ser	Phe	Gln	Glu	Gln	His	Tyr	Leu	Cys	Phe	Val	Met	Gln	Phe
			260					265					270		

				485					490					495			
Thr	Pro	Pro	Ser	Arg	Ser	Gly	Ala	Leu	Ala	Thr	Val	Asp	Glu	Gln	Glu		
			500					505					510				
Glu	Met	Gln	Ser	Asn	Phe	Thr	Gln	Phe	Ser	Phe	His	Asn	Val	Met	Gly		
		515					520					525					
Ser	Ile	Asn	Arg	Ile	His	Glu	Ala	Ser	Glu	Asp	Asn	Glu	Asp	Tyr	Asp		
	530					535					540						
Met	Gly																
545																	

<210> 156

<211> 483

<212> PRT

<213> Caenorhabditis elegans

<400> 156

Met	Ser	Thr	Glu	Asn	Ala	His	Leu	Gln	Lys	Glu	Asp	Ile	Val	Ile	Glu		
1				5				10					15				
Ser	Trp	Leu	His	Lys	Lys	Gly	Glu	His	Ile	Arg	Asn	Trp	Arg	Pro	Arg		
		20					25					30					
Tyr	Phe	Ile	Leu	Phe	Arg	Asp	Gly	Thr	Leu	Leu	Gly	Phe	Arg	Ser	Lys		
		35					40				45						
Pro	Lys	Glu	Asp	Gln	Pro	Leu	Pro	Glu	Pro	Leu	Asn	Asn	Phe	Met	Ile		
	50					55				60							
Arg	Asp	Ala	Ala	Thr	Val	Cys	Leu	Asp	Lys	Pro	Arg	Pro	Asn	Met	Phe		
65				70					75					80			
Ile	Val	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile	Glu	Arg	Thr	Phe	Tyr		
			85				90						95				
Ala	Asp	Ser	Ala	Asp	Phe	Arg	Gln	Met	Trp	Ile	Glu	Ala	Ile	Gln	Ala		
		100					105					110					
Val	Ser	Ser	His	Asn	Arg	Leu	Lys	Glu	Asn	Ala	Gly	Asn	Thr	Ser	Met		
	115					120					125						
Gln	Glu	Glu	Asp	Thr	Asn	Gly	Asn	Pro	Ser	Gly	Glu	Ser	Asp	Val	Asn		
	130					135				140							
Met	Asp	Ala	Thr	Ser	Thr	Arg	Ser	Asp	Asn	Asp	Phe	Glu	Ser	Thr	Val		
145				150				155						160			
Met	Asn	Ile	Asp	Glu	Pro	Glu	Glu	Val	Pro	Arg	Lys	Asn	Thr	Val	Thr		
			165					170					175				
Met	Asp	Asp	Phe	Asp	Phe	Leu	Lys	Val	Leu	Gly	Gln	Gly	Thr	Phe	Gly		
		180				185						190					
Lys	Val	Ile	Leu	Cys	Arg	Glu	Lys	Ser	Ser	Asp	Lys	Leu	Tyr	Ala	Ile		
	195					200					205						
Lys	Ile	Ile	Arg	Lys	Glu	Met	Val	Val	Asp	Arg	Ser	Glu	Val	Ala	His		
	210				215				220								
Thr	Leu	Thr	Glu	Asn	Arg	Val	Leu	Tyr	Ala	Cys	Val	His	Pro	Phe	Leu		
225				230				235						240			
Thr	Leu	Leu	Lys	Tyr	Ser	Phe	Gln	Ala	Gln	Tyr	His	Ile	Cys	Phe	Val		
			245				250					255					
Met	Glu	Phe	Ala	Asn	Gly	Gly	Glu	Leu	Phe	Thr	His	Leu	Gln	Arg	Cys		
		260					265					270					
Lys	Thr	Phe	Ser	Glu	Ala	Arg	Thr	Arg	Phe	Tyr	Gly	Ser	Glu	Ile	Ile		

275	280	285
Leu Ala Leu Gly Tyr Leu His His Arg Asn Ile Val Tyr Arg Asp Met		
290	295	300
Lys Leu Glu Asn Leu Leu Leu Asp Arg Asp Gly His Ile Lys Ile Thr		
305	310	315
Asp Phe Gly Leu Cys Lys Glu Glu Ile Lys Tyr Gly Asp Lys Thr Ser		
325	330	335
Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Ile Glu Asp		
340	345	350
Ile Asp Tyr Asp Arg Ser Val Asp Trp Trp Gly Val Gly Val Val Met		
355	360	365
Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Ser Ala Lys Glu Asn Gly		
370	375	380
Lys Leu Phe Glu Leu Ile Thr Thr Cys Asp Leu Lys Phe Pro Asn Arg		
385	390	395
Leu Ser Pro Glu Ala Val Thr Leu Leu Ser Gly Leu Leu Glu Arg Val		
405	410	415
Pro Ala Lys Arg Leu Gly Ala Gly Pro Asp Asp Ala Arg Glu Val Ser		
420	425	430
Arg Ala Glu Phe Phe Lys Asp Val Asp Trp Glu Ala Thr Leu Arg Lys		
435	440	445
Glu Val Glu Pro Pro Phe Lys Pro Asn Val Met Ser Glu Thr Asp Thr		
450	455	460
Ser Phe Phe Asp Arg Val Arg Tyr Val Ser Ile Leu Leu Lys Val Ser		
465	470	475
Glu Ala Ile		480

<210> 157
 <211> 480
 <212> PRT
 <213> Homo sapiens

<400> 157

Met Ser Asp Val Ala Ile Val Lys Glu Gly Trp Leu His Lys Arg Gly	
1	5
Glu Tyr Ile Lys Thr Trp Arg Pro Arg Tyr Phe Leu Leu Lys Asn Asp	
20	25
Gly Thr Phe Ile Gly Tyr Lys Glu Arg Pro Gln Val Asp Val Gln Arg	
35	40
Glu Ala Pro Leu Asn Asn Phe Ser Val Ala Gln Cys Gln Leu Met Lys	
50	55
Thr Glu Arg Pro Arg Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp	
65	70
Thr Thr Val Ile Glu Arg Thr Phe His Val Glu Thr Pro Glu Glu Arg	
85	90
Glu Glu Trp Thr Thr Ala Ile Gln Thr Val Ala Asp Gly Leu Lys Lys	
100	105
Gln Glu Glu Glu Glu Met Asp Phe Arg Ser Gly Ser Pro Ser Asp Asn	
115	120
Ser Gly Ala Glu Glu Met Glu Val Ser Leu Ala Lys Pro Lys His Arg	

130	135	140
Val Thr Met Asn Glu Phe	Glu Tyr Leu Lys	Leu Leu Gly Lys Gly Thr
145	150	155
Phe Gly Lys Val Ile Leu	Val Lys Glu Lys	Ala Thr Gly Arg Tyr Tyr
165	170	175
Ala Met Lys Ile Leu Lys	Lys Glu Val Ile	Val Ala Lys Asp Glu Val
180	185	190
Ala His Thr Leu Thr Glu	Asn Arg Val Leu	Gln Asn Ser Arg His Pro
195	200	205
Phe Leu Thr Ala Leu Lys	Tyr Ser Phe Gln	Thr His Asp Arg Leu Cys
210	215	220
Phe Val Met Glu Tyr Ala	Asn Gly Gly Glu	Leu Phe Phe His Leu Ser
225	230	235
Arg Glu Arg Val Phe Ser	Glu Asp Phe Ala	Phe Arg Tyr Gly Ala Glu
245	250	255
Ile Val Ser Ala Leu Asp	Tyr Leu His Ser	Glu Lys Asn Val Val Tyr
260	265	270
Arg Asp Leu Lys Leu Glu	Asn Leu Met Leu	Asp Lys Asp Gly His Ile
275	280	285
Lys Ile Thr Asp Phe Gly	Leu Cys Lys Glu	Gly Ile Lys Asp Gly Ala
290	295	300
Thr Met Lys Thr Phe Cys	Gly Thr Pro Glu	Tyr Leu Ala Pro Glu Val
305	310	315
Leu Glu Asp Asn Asp Tyr	Gly Arg Ala Val	Asp Trp Trp Gly Leu Gly
325	330	335
Val Val Met Tyr Glu Met	Met Cys Gly Arg	Leu Pro Phe Tyr Asn Gln
340	345	350
Asp His Glu Lys Leu Phe	Glu Leu Ile Leu	Met Glu Glu Ile Arg Phe
355	360	365
Pro Arg Thr Leu Gly Pro	Glu Ala Lys Ser	Leu Leu Ser Gly Leu Leu
370	375	380
Lys Lys Asp Pro Lys Gln	Arg Leu Gly Gly	Gly Ser Glu Asp Ala Lys
385	390	395
Glu Ile Met Gln His Arg	Phe Phe Ala Gly	Ile Val Trp Gln His Val
405	410	415
Tyr Glu Lys Lys Leu Ser	Pro Pro Phe Lys	Pro Gln Val Thr Ser Glu
420	425	430
Thr Asp Thr Arg Tyr Phe	Asp Glu Glu Phe	Thr Ala Gln Met Ile Thr
435	440	445
Ile Thr Pro Pro Asp Gln	Asp Asp Ser Met	Glu Cys Val Asp Ser Glu
450	455	460
Arg Arg Pro His Phe Pro	Gln Phe Ser Tyr	Ser Ala Ser Ser Thr Ala
465	470	475
		480

<210> 158

<211> 6250

<212> DNA

<213> Caenorhabditis elegans

<400> 158

cataaaaaatc cagtaaattgg taaaattttc aatttcagat ccattctcgat ggaggatctc

60

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gaagcggcgc	caacgggtgag	gaactagttt	ctagacgaac	atcggaatgc	ggcttaaagt	180
tcgggtgcac	ttatcaaact	agaccggtt	tttagaccct	ctttcaaagc	ggggaactgc	240
aatacacttt	ttgaacctaa	aacctagatt	tttgggtgtc	taaattcttt	tgtgaattgg	300
agagccaatt	caaccggaaa	actctttttt	atagggaaaa	cgttttgcca	cgtagcagat	360
aagttaaata	gaaaatat	taaaatat	ttttttgtct	aggaaaaatt	gataaagcac	420
ctgggtccaat	tttcagaacg	ttccaatttt	acctacaata	caaaattggc	cggcaagctt	480
atgggtctctg	tttgccctact	tctagcttga	acattctaa	gctccgtagc	gaaaaaaatt	540
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atattaatta	aatatgaatt	tcgaaatatg	aatttttggt	gacttccatt	atgttttttt	780
tttcacattt	tacaactatt	ctaggcaaaa	atgaaaaaaa	aaaacttgta	gaataatttt	840
caaaatttta	ttttccagac	gctcaactta	acaccaacag	caagtgaatc	ggagaacagc	900
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agaacttcca	acgacttcat	gtttcttcag	agtatggcg	aaggagccta	cagccaggtt	1020
ggtgaacgag	gaaatttcca	gaaatgtgtg	caactagtat	cagagtacaa	ggaaaagctt	1080
ggaaaatact	cggaatgcct	gaattagtgc	ttgaagtaag	cttgcccat	tttttcggaa	1140
catcggtgat	tctttcttgg	caattcaact	gatagtactg	gtattaccta	gccgcaaaaa	1200
atttgcagtt	tttgccacaa	atctatcttg	acacaatata	cctcactatt	agttaaatgc	1260
tgagttttta	tcgattttta	tagctttttt	tacttatgta	tattcaaaat	gtatgtgttt	1320
ttcaaactct	tttaaagggt	tagtacggtc	attaaaaaaa	atatttaaaa	atcatcttca	1380
tggcgctaaa	atgagcgact	atcataagaa	attagaaaat	ttggaaaatt	ggtttat	1440
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atattccaac	attgtaggaa	ttctagaatt	gcttttagatt	tctctttgtt	ttccaatctt	1560
ttttactgta	agttatcatc	attttggcac	cgaaagggtt	ttttaggtaa	ttttaccact	1620
gaccgtaaca	cttttccaat	ggcgatatca	atttgaattt	agcaacaaaa	caaaaaaaaa	1680
caaaaatcgt	accaagacgg	actactgtat	tttttggcgg	aaaaatcggc	caattttgcg	1740
tcagggttac	acgactgtgg	gaattgaact	cgcactatgt	aggcccatc	atgttgtctc	1800
cccctgtcca	atctcttttc	tccacaacac	tttaatctca	tttcgcatgg	agaagagaaa	1860
gaagaagatg	cagaaaacga	cgacatcgtc	atagaattgt	ctacacaaac	ctagtgttct	1920
gcgtctctta	cacaaaataa	gccacgcgtc	tagcactatc	aacattcgca	aacagctata	1980
catgtgcttg	ttgaagggaa	aaacgagacg	tttgtgtgta	ttggggaggg	gtaatgtaac	2040
cgtggttggt	gggttcatca	aattgacagc	gcacagggat	ttgattttga	acgtgttatc	2100
gctttggacc	ctgaggcatg	tttctacac	ctagaacaac	taccgtaatg	aatctttaca	2160
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aatttatgtc	gttggaactt	ccaatttgga	agtacagttt	tttggaatt	aaatttttga	2280
ttcttaaaat	agtcgacttg	aaataatttt	tcgttat	tcaatccaat	gagttgaaaa	2340
agtgaatgga	aatttcttga	ctaaatcgt	ggaaaattat	ctagttttgt	ttttcagata	2400
agttgtaaac	actttgatag	ttaaaatgat	tgtttgtagt	gatcagaagc	agaaaatctg	2460
actagtttcc	gccccccccc	cctatacata	tgatgcacac	ttaaaatgtc	caagtgggtg	2520
ttgaatagca	aatcttgaaa	acgtaaaaac	aataattatt	ttctatatct	gtaaatat	2580
tcaacgaatt	ttcagcttcc	aaattttggt	cgtttttgga	tctttttaca	aaaaaaatat	2640
tttatcaact	gacactgata	atattttctg	cctcatatta	aaaaatattc	ctctagcaaa	2700
aactgtaagt	tgaacgaatt	tacaataaaa	aacacagctg	cactgaccaa	aaaacaatta	2760
cactggccaa	aattgagctt	gcactgaccg	agtttagcga	ccatatcttt	tttgtctaat	2820
ttgtggtgtg	tgcggcgaat	tcggcaaaat	tgctgagctc	ggaaaacaga	aaatttgga	2880
aaattaccgc	aaactcttca	actgaagcca	ctattgcaca	ttaactgtca	aaattctgga	2940
tataattagc	aaaacaataa	gtaacatttc	tgaaaaatta	gaacctttcc	cgcattgtat	3000
ttgtagacgc	acctaaaaaa	tttcaaaaaca	ccaaaaaaca	agcttccagt	aaaaccctaa	3060
tattccaggt	attccgatgt	cgcgaagtgg	caacagatgc	gatgttcgcc	gtcaaagtgc	3120

tccagaagtc	gtacctcaac	cgccatcaaa	aaatggacgc	aatcattcgc	gagaagaata	3180
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ccatcaaaat	ccacttgtga	tcattttatt	ccaataaaaa	cgtcaactta	aaaaaaaaat	3360
taaacctcaa	ttaatatcca	gatttcgtga	tccgacttgt	tgaaaatggt	gatcttggcg	3420
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tcctcacccg	actgcaattc	ctacacgaca	acaaaattgt	gcacagagac	atgaagccgg	3540
acaatgtgct	catccagaaa	gacggtcaca	ttctcatcac	agattttgga	agtgccccgg	3600
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gatcttcgga	ttctggatcg	ccgccgccaa	ctcgattcta	ttcggaatgag	gagggttaagg	3720
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cgacatttgg	ggattgggat	gtatcctttt	ccagtgctta	gccggacagc	caccattcag	3960
agccgtcaac	cagtaccatc	ttttgaaaag	aatccaggag	ttggatttct	cgttcccaga	4020
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tatcaagcca	ccagtcctgc	acgcctacat	tccagccaca	tttggcgagc	cggagtacta	4260
ctctaacatt	gggcctgtcg	agccgggact	tgatgatcgt	gccttgttcc	gtttgatgaa	4320
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gcattaaaaag	ttttaccttg	cactgaccaa	aattttattga	aactattaat	tatttgattc	4440
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cagtttgcac	tgaccacctc	ttcattttgca	ctgaccacct	cttcatttgc	actgaccaac	4560
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gcaatgattc	ttttgcatct	actgatcaaa	aattgattca	aatcaattaa	ttttctttga	4680
cagtactatg	ccttattcaa	ggagatgctg	atctgaaaat	tctcaatagt	tgataaaaaat	4740
tactaacccc	ttagaaagtt	tcagaccgtc	taacgtggaa	catcgccggag	acccattttgt	4800
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tatagacgcg	ccaattcgga	agccgaaaag	aaccgcgcgc	cacgtgcgca	gaagctcgaa	4920
gagcaacgtg	tcaaaaaccc	attccacatc	ttcaccaaca	actcgctcat	tttgaaacaa	4980
ggatattttg	aaaagaagcg	aggattgttt	gccagacgcc	gaatgttcc	gttgaccgaa	5040
ggaccgcac	tcttgtacat	tgatgtgccg	aatcttgtgc	tcaaaggaga	ggtaccatgg	5100
acgccgtgca	tgcaggtgga	gctaaaaaac	tccgggaactt	tctttataca	tacggtaggt	5160
cagaataatc	atagctgtct	atctcattat	agtactcaat	gaatctgaaa	atltcaaatt	5220
ttcagcccaa	ccgcgtctac	tacttgtttg	atctcgaaaa	gaaagcagat	gagtgggtgta	5280
aggctatcaa	tgatgttcgc	aagcgttact	cggtgactat	cgaaaagact	tttaactctg	5340
cgatgcgtga	cggaacattt	ggcagcattt	atggaaagaa	aaagtccaga	aaggatatgaa	5400
ttactggaag	gccccctca	ctgagtttcc	agcaagttca	gagtttttta	ttggaatttt	5460
tgccaatttt	cattagactt	tagagcctat	tgtatatttg	tggacagggt	taaacatttt	5520
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aaattctgtt	ctcaaaattg	gatttttaca	gagcttgttt	cgagatttca	taatccttca	5640
aaagaatata	gaatatttgt	gttcaacttt	tcttgtcaaa	atattttttt	tggacaatct	5700
agattctgga	aaattttcaa	aaaaagataa	tctctaaaca	aaactaaatt	caaaatgttc	5760
taaaggttct	ttattttcca	tgcaactcta	aaatcttccc	gtatattttt	ttggaaagtc	5820
ttatgatgtt	tagacggttt	aaattttttg	atgatttaaa	ttttttaggg	gtgggtctata	5880
atltttggacc	accctgtata	attatggacc	accatgtaca	cttatagacc	acccagtaac	5940
aagcattttt	ggaccaccac	gcaaacttta	ttattatgga	ccacccaaac	ttagaacacc	6000
ttcaataactt	cttttctgtt	caaaaaatga	tcaacttgct	gaaaaaaaat	ttttttaggg	6060
aatgatgctg	tgaacagaag	gcgctgcgcc	gcaacaaga	aaaggaggag	aaaaggcgc	6120
taaaagccga	gcaagtgagc	aagaagcttt	caatgcaaat	ggacaagaag	tcgccttgaa	6180

ggctcacctc ccttctactc cccacaaaat caccatcaaa caaatcacac ttttgtatca 6240
 ttttgcgtcc 6250

<210> 159
 <211> 632
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 159
 Met Glu Asp Leu Thr Pro Thr Asn Thr Ser Leu Asp Thr Thr Thr Thr
 1 5 10 15
 Asn Asn Asp Thr Thr Ser Asp Arg Glu Ala Ala Pro Thr Thr Leu Asn
 20 25 30
 Leu Thr Pro Thr Ala Ser Glu Ser Glu Asn Ser Leu Ser Pro Val Thr
 35 40 45
 Ala Glu Asp Leu Ile Ala Lys Ser Ile Lys Glu Gly Cys Pro Lys Arg
 50 55 60
 Thr Ser Asn Asp Phe Met Phe Leu Gln Ser Met Gly Glu Gly Ala Tyr
 65 70 75 80
 Ser Gln Val Phe Arg Cys Arg Glu Val Ala Thr Asp Ala Met Phe Ala
 85 90 95
 Val Lys Val Leu Gln Lys Ser Tyr Leu Asn Arg His Gln Lys Met Asp
 100 105 110
 Ala Ile Ile Arg Glu Lys Asn Ile Leu Thr Tyr Leu Ser Gln Glu Cys
 115 120 125
 Gly Gly His Pro Phe Val Thr Gln Leu Tyr Thr His Phe His Asp Gln
 130 135 140
 Ala Arg Ile Tyr Phe Val Ile Gly Leu Val Glu Asn Gly Asp Leu Gly
 145 150 155 160
 Glu Ser Leu Cys His Phe Gly Ser Phe Asp Met Leu Thr Ser Lys Phe
 165 170 175
 Phe Ala Ser Glu Ile Leu Thr Gly Leu Gln Phe Leu His Asp Asn Lys
 180 185 190
 Ile Val His Arg Asp Met Lys Pro Asp Asn Val Leu Ile Gln Lys Asp
 195 200 205
 Gly His Ile Leu Ile Thr Asp Phe Gly Ser Ala Gln Ala Phe Gly Gly
 210 215 220
 Leu Gln Leu Ser Gln Glu Gly Phe Thr Asp Ala Asn Gln Ala Ser Ser
 225 230 235 240
 Arg Ser Ser Asp Ser Gly Ser Pro Pro Pro Thr Arg Phe Tyr Ser Asp
 245 250 255
 Glu Glu Glu Glu Asn Thr Ala Arg Arg Thr Thr Phe Val Gly Thr Ala
 260 265 270
 Leu Tyr Val Ser Pro Glu Met Leu Ala Asp Gly Asp Val Gly Pro Gln
 275 280 285
 Thr Asp Ile Trp Gly Leu Gly Cys Ile Leu Phe Gln Cys Leu Ala Gly
 290 295 300
 Gln Pro Pro Phe Arg Ala Val Asn Gln Tyr His Leu Leu Lys Arg Ile
 305 310 315 320

Gln Glu Leu Asp Phe Ser Phe Pro Glu Gly Phe Pro Glu Glu Ala Ser
 325 330 335
 Glu Ile Ile Ala Lys Ile Leu Val Arg Asp Pro Ser Thr Arg Ile Thr
 340 345 350
 Ser Gln Glu Leu Met Ala His Lys Phe Phe Glu Asn Val Asp Trp Val
 355 360 365
 Asn Ile Ala Asn Ile Lys Pro Pro Val Leu His Ala Tyr Ile Pro Ala
 370 375 380
 Thr Phe Gly Glu Pro Glu Tyr Tyr Ser Asn Ile Gly Pro Val Glu Pro
 385 390 395 400
 Gly Leu Asp Asp Arg Ala Leu Phe Arg Leu Met Asn Leu Gly Asn Asp
 405 410 415
 Ala Ser Ala Ser Gln Pro Ser Thr Pro Ser Asn Val Glu His Arg Gly
 420 425 430
 Asp Pro Phe Val Ser Glu Ile Ala Pro Arg Ala Asn Ser Glu Ala Glu
 435 440 445
 Lys Asn Arg Ala Ala Arg Ala Gln Lys Leu Glu Glu Gln Arg Val Lys
 450 455 460
 Asn Pro Phe His Ile Phe Thr Asn Asn Ser Leu Ile Leu Lys Gln Gly
 465 470 475 480
 Tyr Leu Glu Lys Lys Arg Gly Leu Phe Ala Arg Arg Arg Met Phe Leu
 485 490 495
 Leu Thr Glu Gly Pro His Leu Leu Tyr Ile Asp Val Pro Asn Leu Val
 500 505 510
 Leu Lys Gly Glu Val Pro Trp Thr Pro Cys Met Gln Val Glu Leu Lys
 515 520 525
 Asn Ser Gly Thr Phe Phe Ile His Thr Pro Asn Arg Val Tyr Tyr Leu
 530 535 540
 Phe Asp Leu Glu Lys Lys Ala Asp Glu Trp Cys Lys Ala Ile Asn Asp
 545 550 555 560
 Val Arg Lys Arg Tyr Ser Val Thr Ile Glu Lys Thr Phe Asn Ser Ala
 565 570 575
 Met Arg Asp Gly Thr Phe Gly Ser Ile Tyr Gly Lys Lys Lys Ser Arg
 580 585 590
 Lys Glu Met Met Arg Glu Gln Lys Ala Leu Arg Arg Lys Gln Glu Lys
 595 600 605
 Glu Glu Lys Lys Ala Leu Lys Ala Glu Gln Val Ser Lys Lys Leu Ser
 610 615 620
 Met Gln Met Asp Lys Lys Ser Pro
 625 630

<210> 160

<211> 636

<212> PRT

<213> Caenorhabditis elegans

<400> 160

Met Glu Asp Leu Thr Pro Thr Asn Thr Ser Leu Asp Thr Thr Thr Thr
 1 5 10 15
 Asn Asn Asp Thr Thr Ser Asp Arg Glu Ala Ala Pro Thr Thr Leu Asn
 20 25 30

Leu	Thr	Pro	Thr	Ala	Ser	Glu	Ser	Glu	Asn	Ser	Leu	Ser	Pro	Val	Thr
		35					40					45			
Ala	Glu	Asp	Leu	Ile	Ala	Lys	Ser	Ile	Lys	Glu	Gly	Cys	Pro	Lys	Arg
	50					55					60				
Thr	Ser	Asn	Asp	Phe	Met	Phe	Leu	Gln	Ser	Met	Gly	Glu	Gly	Ala	Tyr
65					70					75					80
Ser	Gln	Val	Phe	Arg	Cys	Arg	Glu	Val	Ala	Thr	Asp	Ala	Met	Phe	Ala
				85					90					95	
Val	Lys	Val	Leu	Gln	Lys	Ser	Tyr	Leu	Asn	Arg	His	Gln	Lys	Met	Asp
			100					105					110		
Ala	Ile	Ile	Arg	Glu	Lys	Asn	Ile	Leu	Thr	Tyr	Leu	Ser	Gln	Glu	Cys
		115					120					125			
Gly	Gly	His	Pro	Phe	Val	Thr	Gln	Leu	Tyr	Thr	His	Phe	His	Asp	Gln
	130					135					140				
Ala	Arg	Ile	Tyr	Phe	Val	Ile	Gly	Leu	Val	Glu	Asn	Gly	Asp	Leu	Gly
145					150					155					160
Glu	Ser	Leu	Cys	His	Phe	Gly	Ser	Phe	Asp	Met	Leu	Thr	Ser	Lys	Phe
				165					170					175	
Phe	Ala	Ser	Glu	Ile	Leu	Thr	Gly	Leu	Gln	Phe	Leu	His	Asp	Asn	Lys
			180					185					190		
Ile	Val	His	Arg	Asp	Met	Lys	Pro	Asp	Asn	Val	Leu	Ile	Gln	Lys	Asp
		195				200						205			
Gly	His	Ile	Leu	Ile	Thr	Asp	Phe	Gly	Ser	Ala	Gln	Ala	Phe	Gly	Gly
	210					215					220				
Leu	Gln	Leu	Ser	Gln	Glu	Gly	Phe	Thr	Asp	Ala	Asn	Gln	Ala	Ser	Ser
225					230					235					240
Arg	Ser	Ser	Asp	Ser	Gly	Ser	Pro	Pro	Pro	Thr	Arg	Phe	Tyr	Ser	Asp
			245						250					255	
Glu	Glu	Val	Pro	Glu	Glu	Asn	Thr	Ala	Arg	Arg	Thr	Thr	Phe	Val	Gly
			260					265					270		
Thr	Ala	Leu	Tyr	Val	Ser	Pro	Glu	Met	Leu	Ala	Asp	Gly	Asp	Val	Gly
		275					280					285			
Pro	Gln	Thr	Asp	Ile	Trp	Gly	Leu	Gly	Cys	Ile	Leu	Phe	Gln	Cys	Leu
	290					295					300				
Ala	Gly	Gln	Pro	Pro	Phe	Arg	Ala	Val	Asn	Gln	Tyr	His	Leu	Leu	Lys
305					310					315					320
Arg	Ile	Gln	Glu	Leu	Asp	Phe	Ser	Phe	Pro	Glu	Gly	Phe	Pro	Glu	Glu
				325					330					335	
Ala	Ser	Glu	Ile	Ile	Ala	Lys	Ile	Leu	Val	Arg	Asp	Pro	Ser	Thr	Arg
			340					345					350		
Ile	Thr	Ser	Gln	Glu	Leu	Met	Ala	His	Lys	Phe	Phe	Glu	Asn	Val	Asp
		355					360					365			
Trp	Val	Asn	Ile	Ala	Asn	Ile	Lys	Pro	Pro	Val	Leu	His	Ala	Tyr	Ile
	370					375					380				
Pro	Ala	Thr	Phe	Gly	Glu	Pro	Glu	Tyr	Tyr	Ser	Asn	Ile	Gly	Pro	Val
385					390					395					400
Glu	Pro	Gly	Leu	Asp	Asp	Arg	Ala	Leu	Phe	Arg	Leu	Met	Asn	Leu	Gly
				405					410					415	
Asn	Asp	Ala	Ser	Ala	Ser	Gln	Pro	Ser	Thr	Phe	Arg	Pro	Ser	Asn	Val
			420					425					430		
Glu	His	Arg	Gly	Asp	Pro	Phe	Val	Ser	Glu	Ile	Ala	Pro	Arg	Ala	Asn

435	440	445
Ser Glu Ala Glu Lys Asn Arg	Ala Ala Arg Ala Gln Lys Leu Glu Glu	
450	455	460
Gln Arg Val Lys Asn Pro Phe His Ile Phe Thr Asn Asn Ser Leu Ile		
465	470	475
Leu Lys Gln Gly Tyr Leu Glu Lys Lys Arg Gly Leu Phe Ala Arg Arg		
485	490	495
Arg Met Phe Leu Leu Thr Glu Gly Pro His Leu Leu Tyr Ile Asp Val		
500	505	510
Pro Asn Leu Val Leu Lys Gly Glu Val Pro Trp Thr Pro Cys Met Gln		
515	520	525
Val Glu Leu Lys Asn Ser Gly Thr Phe Phe Ile His Thr Pro Asn Arg		
530	535	540
Val Tyr Tyr Leu Phe Asp Leu Glu Lys Lys Ala Asp Glu Trp Cys Lys		
545	550	555
Ala Ile Asn Asp Val Arg Lys Arg Tyr Ser Val Thr Ile Glu Lys Thr		
565	570	575
Phe Asn Ser Ala Met Arg Asp Gly Thr Phe Gly Ser Ile Tyr Gly Lys		
580	585	590
Lys Lys Ser Arg Lys Glu Met Met Arg Glu Gln Lys Ala Leu Arg Arg		
595	600	605
Lys Gln Glu Lys Glu Glu Lys Lys Ala Leu Lys Ala Glu Gln Val Ser		
610	615	620
Lys Lys Leu Ser Met Gln Met Asp Lys Lys Ser Pro		
625	630	635

<210> 161
 <211> 54
 <212> PRT
 <213> Homo sapiens

<400> 161
 Ser Pro Val Gly His Phe Ala Lys Trp Ser Gly Ser Pro Cys Ser Arg
 1 5 10 15
 Asn Arg Glu Glu Ala Asp Met Trp Thr Thr Phe Arg Pro Arg Ser Ser
 20 25 30
 Ser Asn Ala Ser Ser Val Ser Thr Arg Leu Ser Pro Leu Arg Pro Glu
 35 40 45
 Ser Glu Val Leu Ala Glu
 50

<210> 162
 <211> 28
 <212> PRT
 <213> Homo sapiens

<400> 162
 Ser Pro Phe Lys Trp Ser Pro Ser Asp Trp Thr Phe Arg Pro Arg Ser
 1 5 10 15
 Ser Asn Ala Ser Ser Arg Leu Ser Pro Glu Leu Glu
 20 25

<210> 163
 <211> 54
 <212> PRT
 <213> Homo sapiens

<400> 163
 Ser Pro Gly Ser Gln Phe Ser Lys Trp Pro Ala Ser Pro Gly Ser His
 1 5 10 15
 Ser Asn Asp Asp Phe Asp Asn Trp Ser Thr Phe Arg Pro Arg Thr Ser
 20 25 30
 Ser Asn Ala Ser Thr Ile Ser Gly Arg Leu Ser Pro Ile Met Thr Glu
 35 40 45
 Gln Asp Asp Leu Gly Glu
 50

<210> 164
 <211> 17
 <212> PRT
 <213> Caenorhabditis elegans

<400> 164
 Ser Phe Arg Pro Arg Thr Gln Ser Asn Leu Ser Ile Pro Gly Ser Ser
 1 5 10 15
 Ser

<210> 165
 <211> 42
 <212> PRT
 <213> Homo sapiens

<400> 165
 Lys Ala Ala Ala Ile Ile Asp Leu Asp Pro Asp Phe Glu Pro Gln Ser
 1 5 10 15
 Arg Pro Arg Ser Cys Thr Trp Pro Leu Pro Arg Pro Glu Ile Ala Asn
 20 25 30
 Gln Pro Ser Glu Pro Pro Glu Val Glu Pro
 35 40

<210> 166
 <211> 22
 <212> PRT
 <213> Homo sapiens

<400> 166
 Ala Asp Pro Asp Phe Glu Pro Arg Pro Arg Ser Cys Thr Trp Pro Leu
 1 5 10 15
 Pro Arg Pro Glu Ser Pro
 20

<210> 167

<211> 42
 <212> PRT
 <213> Homo sapiens

<400> 167
 Glu Ala Pro Gln Val Val Glu Ile Asp Pro Asp Phe Glu Pro Leu Pro
 1 5 10 15
 Arg Pro Arg Ser Cys Thr Trp Pro Leu Pro Arg Pro Glu Phe Ser Gln
 20 25 30
 Ser Asn Ser Ala Thr Ser Ser Pro Ala Pro
 35 40

<210> 168
 <211> 41
 <212> PRT
 <213> Caenorhabditis elegans

<400> 168
 Thr Phe Met Asn Thr Pro Asp Asp Val Met Met Asn Asp Asp Met Glu
 1 5 10 15
 Pro Ile Pro Arg Asp Arg Cys Asn Thr Trp Pro Met Arg Arg Pro Gln
 20 25 30
 Leu Glu Pro Pro Leu Asn Ser Ser Pro
 35 40

<210> 169
 <211> 14
 <212> PRT
 <213> Caenorhabditis elegans or Homo sapiens

<400> 169
 Thr Pro Val Asp Glu Pro Pro Arg Arg Thr Trp Pro Arg Pro
 1 5 10

<210> 170
 <211> 80
 <212> PRT
 <213> Mus musculus or Homo sapiens

<400> 170
 Leu Glu Lys Gln Ala Gly Gly Asn Pro Trp His Gln Phe Val Glu Asn
 1 5 10 15
 Asn Leu Ile Leu Lys Met Gly Pro Val Asp Lys Arg Lys Gly Leu Phe
 20 25 30
 Ala Arg Arg Arg Gln Leu Leu Leu Thr Glu Gly Pro His Leu Tyr Tyr
 35 40 45
 Val Asp Pro Val Asn Lys Val Leu Lys Gly Glu Ile Pro Trp Ser Gln
 50 55 60
 Glu Leu Arg Pro Glu Ala Lys Asn Phe Lys Thr Phe Phe Val His Thr
 65 70 75 80

<210> 171
 <211> 47
 <212> PRT
 <213> Mus musculus or Homo sapiens or C elegans

<400> 171
 Leu Glu Gln Asn Pro His Phe Asn Leu Ile Leu Lys Gly Lys Gly Leu
 1 5 10 15
 Phe Ala Arg Arg Arg Leu Leu Thr Glu Gly Pro His Leu Tyr Asp Asn
 20 25 30
 Val Leu Lys Gly Glu Pro Trp Glu Lys Asn Thr Phe Phe His Thr
 35 40 45

<210> 172
 <211> 80
 <212> PRT
 <213> Caenorhabditis elegans

<400> 172
 Leu Glu Glu Gln Arg Val Lys Asn Pro Phe His Ile Phe Thr Asn Asn
 1 5 10 15
 Ser Leu Ile Leu Lys Gln Gly Tyr Leu Glu Lys Lys Arg Gly Leu Phe
 20 25 30
 Ala Arg Arg Arg Met Phe Leu Leu Thr Glu Gly Pro His Leu Leu Tyr
 35 40 45
 Ile Asp Val Pro Asn Leu Val Leu Lys Gly Glu Val Pro Trp Thr Pro
 50 55 60
 Cys Met Gln Val Glu Leu Lys Asn Ser Gly Thr Phe Phe Ile His Thr
 65 70 75 80

<210> 173
 <211> 113
 <212> PRT
 <213> Mus musculus or Homo sapiens

<400> 173
 Ser Asp Leu Trp Ala Leu Gly Cys Ile Ile Tyr Gln Leu Val Ala Gly
 1 5 10 15
 Leu Pro Pro Phe Arg Ala Gly Asn Glu Tyr Leu Ile Phe Gln Lys Ile
 20 25 30
 Ile Lys Leu Glu Tyr Asp Phe Pro Glu Lys Phe Phe Pro Lys Ala Arg
 35 40 45
 Asp Leu Val Glu Lys Leu Leu Val Leu Asp Ala Thr Lys Arg Leu Gly
 50 55 60
 Cys Glu Glu Met Glu Gly Tyr Gly Pro Leu Lys Ala His Pro Phe Phe
 65 70 75 80
 Glu Ser Val Thr Trp Glu Asn Leu His Gln Gln Thr Pro Pro Lys Leu
 85 90 95
 Thr Ala Tyr Leu Pro Ala Met Ser Glu Asp Asp Glu Asp Cys Tyr Gly
 100 105 110
 Asn

<210> 174
 <211> 48
 <212> PRT
 <213> Mus musculus or Homo sapiens or C elegans

<400> 174
 Asp Trp Leu Gly Cys Ile Gln Ala Gly Pro Pro Phe Arg Ala Asn Tyr
 1 5 10 15
 Ile Leu Phe Pro Glu Phe Ala Lys Leu Val Leu Glu Pro Leu Ala His
 20 25 30
 Phe Phe Glu Val Trp Asn Pro Pro Leu Ala Tyr Pro Ala Glu Tyr Asn
 35 40 45

<210> 175
 <211> 122
 <212> PRT
 <213> Caenorhabditis elegans

<400> 175
 Thr Asp Ile Trp Gly Leu Gly Cys Ile Leu Phe Gln Cys Leu Ala Gly
 1 5 10 15
 Gln Pro Pro Phe Arg Ala Val Asn Gln Tyr His Leu Leu Lys Arg Ile
 20 25 30
 Gln Glu Leu Asp Phe Ser Phe Pro Glu Gly Phe Pro Glu Glu Ala Ser
 35 40 45
 Glu Ile Ile Ala Lys Ile Leu Val Gly His Glu Thr Leu Lys Thr Glu
 50 55 60
 Tyr Val Ile Phe Asn Leu Gln Val Arg Asp Pro Ser Thr Arg Ile Thr
 65 70 75 80
 Ser Gln Glu Leu Met Ala His Lys Phe Phe Glu Asn Val Asp Trp Val
 85 90 95
 Asn Ile Ala Asn Ile Lys Pro Pro Val Leu His Ala Tyr Ile Pro Ala
 100 105 110
 Thr Phe Gly Glu Pro Glu Tyr Tyr Ser Asn
 115 120

<210> 176
 <211> 72
 <212> PRT
 <213> Mus musculus or Homo sapiens

<400> 176
 Phe Gly Leu Ser Tyr Ala Lys Asn Gly Glu Leu Leu Lys Tyr Ile Arg
 1 5 10 15
 Lys Ile Gly Ser Phe Asp Glu Thr Cys Thr Arg Phe Tyr Thr Ala Glu
 20 25 30
 Ile Val Ser Ala Leu Glu Tyr Leu His Gly Lys Gly Ile Ile His Arg
 35 40 45
 Asp Leu Lys Pro Glu Asn Ile Leu Leu Asn Glu Asp Met His Ile Gln
 50 55 60

Ile Thr Asp Phe Gly Thr Ala Lys
65 70

<210> 177

<211> 31

<212> PRT

<213> Mus musculus or Homo sapiens or C elegans

<400> 177

Phe Asn Gly Leu Gly Ser Phe Asp Phe Glu Ile Leu Leu His Ile His
1 5 10 15
Arg Asp Lys Pro Asn Leu Asp His Ile Ile Thr Asp Phe Gly Ala
20 25 30

<210> 178

<211> 72

<212> PRT

<213> Caenorhabditis elegans

<400> 178

Phe Val Ile Gly Leu Val Glu Asn Gly Asp Leu Gly Glu Ser Leu Cys
1 5 10 15
His Phe Gly Ser Phe Asp Met Leu Thr Ser Lys Phe Phe Ala Ser Glu
20 25 30
Ile Leu Thr Gly Leu Gln Phe Leu His Asp Asn Lys Ile Val His Arg
35 40 45
Asp Met Lys Pro Asp Asn Val Leu Ile Gln Lys Asp Gly His Ile Leu
50 55 60
Ile Thr Asp Phe Gly Ser Ala Gln
65 70

<210> 179

<211> 48

<212> PRT

<213> Mus musculus or Homo sapiens

<400> 179

Tyr Ala Ile Lys Ile Leu Glu Lys Arg His Ile Ile Lys Glu Asn Lys
1 5 10 15
Val Pro Tyr Val Thr Arg Glu Arg Asp Val Met Ser Arg Leu Asp His
20 25 30
Pro Phe Phe Val Lys Leu Tyr Phe Thr Phe Gln Asp Asp Glu Lys Leu
35 40 45

<210> 180

<211> 15

<212> PRT

<213> Mus musculus or Homo sapiens or C elegans

<400> 180

Ala Lys Leu Lys Lys Arg Glu Leu His Pro Phe Leu Tyr Phe Asp

1 5 10 15
 <210> 181
 <211> 53
 <212> PRT
 <213> *Caenorhabditis elegans*

 <400> 181
 Phe Ala Val Lys Val Leu Gln Lys Ser Tyr Leu Asn Arg His Gln Lys
 1 5 10 15
 Met Asp Ala Ile Ile Arg Glu Lys Asn Ile Leu Thr Tyr Leu Ser Gln
 20 25 30
 Glu Cys Gly Gly His Pro Phe Val Thr Gln Leu Tyr Thr His Phe His
 35 40 45
 Asp Gln Ala Arg Ile
 50

 <210> 182
 <211> 29
 <212> PRT
 <213> *Mus musculus* or *Homo sapiens*

 <400> 182
 Pro Asn Arg Thr Tyr Tyr Leu Met Asp Pro Ser Gly Asn Ala His Lys
 1 5 10 15
 Trp Cys Arg Lys Ile Gln Glu Val Trp Arg Gln Arg Tyr
 20 25

 <210> 183
 <211> 15
 <212> PRT
 <213> *Mus musculus* or *Homo sapiens* or *C. elegans*

 <400> 183
 Pro Asn Arg Tyr Tyr Leu Asp Ala Trp Cys Ile Val Arg Arg Tyr
 1 5 10 15

 <210> 184
 <211> 28
 <212> PRT
 <213> *Caenorhabditis elegans*

 <400> 184
 Pro Asn Arg Val Tyr Tyr Leu Phe Asp Leu Glu Lys Lys Ala Asp Glu
 1 5 10 15
 Trp Cys Lys Ala Ile Asn Asp Val Arg Lys Arg Tyr
 20 25

 <210> 185
 <211> 25
 <212> PRT

<213> Mus musculus or Homo sapiens

<400> 185

Pro Glu Ser Lys Gln Ala Arg Ala Asn Ser Phe Val Gly Thr Ala Gln
1 5 10 15
Tyr Val Ser Pro Glu Leu Leu Thr Glu
20 25

<210> 186

<211> 15

<212> PRT

<213> Mus musculus or Homo sapiens or C elegans

<400> 186

Pro Glu Ala Arg Phe Val Gly Thr Ala Tyr Val Ser Pro Glu Leu
1 5 10 15

<210> 187

<211> 25

<212> PRT

<213> Caenorhabditis elegans

<400> 187

Pro Glu Glu Asn Thr Ala Arg Arg Thr Thr Phe Val Gly Thr Ala Leu
1 5 10 15
Tyr Val Ser Pro Glu Met Leu Ala Asp
20 25

<210> 188

<211> 62

<212> PRT

<213> Caenorhabditis elegans

<400> 188

Lys Arg Thr Ser Asn Asp Phe Met Phe Leu Gln Ser Met Gly Glu Gly
1 5 10 15
Ala Tyr Ser Gln Val Phe Arg Cys Arg Glu Val Ala Thr Asp Ala Met
20 25 30
Phe Ala Val Lys Val Leu Gln Lys Ser Tyr Leu Asn Arg His Gln Lys
35 40 45
Met Asp Ala Ile Ile Arg Glu Lys Asn Ile Leu Thr Tyr Leu
50 55 60

<210> 189

<211> 21

<212> PRT

<213> Caenorhabditis elegans or Homo sapiens

<400> 189

Lys Asp Phe Phe Gly Glu Gly Ser Val Arg Glu Ala Thr Ala Lys Leu
1 5 10 15

Lys Lys Arg Glu Leu
20

<210> 190
<211> 62
<212> PRT
<213> Homo sapiens

<400> 190
Lys Lys Arg Pro Glu Asp Phe Lys Phe Gly Lys Ile Leu Gly Glu Gly
1 5 10 15
Ser Phe Ser Thr Val Val Leu Ala Arg Glu Leu Ala Thr Ser Arg Glu
20 25 30
Tyr Ala Ile Lys Ile Leu Glu Lys Arg His Ile Ile Lys Glu Asn Lys
35 40 45
Val Pro Tyr Val Thr Arg Glu Arg Asp Val Met Ser Arg Leu
50 55 60

<210> 191
<211> 90
<212> PRT
<213> Caenorhabditis elegans

<400> 191
His Pro Phe Val Thr Gln Leu Tyr Thr His Phe His Asp Gln Ala Arg
1 5 10 15
Ile Tyr Phe Val Ile Gly Leu Val Glu Asn Gly Asp Leu Gly Glu Ser
20 25 30
Leu Cys His Phe Gly Ser Phe Asp Met Leu Thr Ser Lys Phe Phe Ala
35 40 45
Ser Glu Ile Leu Thr Gly Leu Gln Phe Leu His Asp Asn Lys Ile Val
50 55 60
His Arg Asp Met Lys Pro Asp Asn Val Leu Ile Gln Lys Asp Gly His
65 70 75 80
Ile Leu Ile Thr Asp Phe Gly Ser Ala Gln
85 90

<210> 192
<211> 39
<212> PRT
<213> Caenorhabditis elegans

<400> 192
His Pro Phe Leu Tyr Phe Asp Tyr Phe Asn Gly Leu Gly Ser Phe Asp
1 5 10 15
Phe Glu Ile Leu Leu His Ile His Arg Asp Lys Pro Asn Leu Asp His
20 25 30
Ile Ile Thr Asp Phe Gly Ala
35

<210> 193

<211> 90
 <212> PRT
 <213> Homo sapiens

<400> 193

His	Pro	Phe	Phe	Val	Lys	Leu	Tyr	Phe	Thr	Phe	Gln	Asp	Asp	Glu	Lys
1				5					10					15	
Leu	Tyr	Phe	Gly	Leu	Ser	Tyr	Ala	Lys	Asn	Gly	Glu	Leu	Leu	Lys	Tyr
			20					25					30		
Ile	Arg	Lys	Ile	Gly	Ser	Phe	Asp	Glu	Thr	Cys	Thr	Arg	Phe	Tyr	Thr
		35					40					45			
Ala	Glu	Ile	Val	Ser	Ala	Leu	Glu	Tyr	Leu	His	Gly	Lys	Gly	Ile	Ile
	50					55					60				
His	Arg	Asp	Leu	Lys	Pro	Glu	Asn	Ile	Leu	Leu	Asn	Glu	Asp	Met	His
65					70					75					80
Ile	Gln	Ile	Thr	Asp	Phe	Gly	Thr	Ala	Lys						
				85					90						

<210> 194
 <211> 98
 <212> PRT
 <213> Caenorhabditis elegans

<400> 194

Glu	Glu	Asn	Thr	Ala	Arg	Arg	Thr	Thr	Phe	Val	Gly	Thr	Ala	Leu	Tyr
1				5					10					15	
Val	Ser	Pro	Glu	Met	Leu	Ala	Asp	Gly	Asp	Val	Gly	Pro	Gln	Thr	Asp
			20					25					30		
Ile	Trp	Gly	Leu	Gly	Cys	Ile	Leu	Phe	Gln	Cys	Leu	Ala	Gly	Gln	Pro
		35					40					45			
Pro	Phe	Arg	Ala	Val	Asn	Gln	Tyr	His	Leu	Leu	Lys	Arg	Ile	Gln	Glu
	50					55					60				
Leu	Asp	Phe	Ser	Phe	Pro	Glu	Gly	Phe	Pro	Glu	Glu	Ala	Ser	Glu	Ile
65					70					75					80
Ile	Ala	Lys	Ile	Leu	Val	Arg	Asp	Pro	Ser	Thr	Arg	Ile	Thr	Ser	Gln
				85					90					95	
Glu	Leu														

<210> 195
 <211> 43
 <212> PRT
 <213> Caenorhabditis elegans or Homo sapiens

<400> 195

Glu	Ala	Arg	Phe	Val	Gly	Thr	Ala	Tyr	Val	Ser	Pro	Glu	Leu	Asp	Trp
1				5					10					15	
Leu	Gly	Cys	Ile	Gln	Ala	Gly	Pro	Pro	Phe	Arg	Ala	Asn	Tyr	Ile	Leu
			20					25					30		
Phe	Pro	Glu	Phe	Ala	Lys	Leu	Val	Asp	Arg	Glu					
		35						40							

<210> 196
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 196
 Glu Ser Lys Gln Ala Arg Ala Asn Ser Phe Val Gly Thr Ala Gln Tyr
 1 5 10 15
 Val Ser Pro Glu Leu Leu Thr Glu Lys Ser Ala Cys Lys Ser Ser Asp
 20 25 30
 Leu Trp Ala Leu Gly Cys Ile Ile Tyr Gln Leu Val Ala Gly Leu Pro
 35 40 45
 Pro Phe Arg Ala Gly Asn Glu Tyr Leu Ile Phe Gln Lys Ile Ile Lys
 50 55 60
 Leu Glu Tyr Asp Phe Pro Glu Lys Phe Phe Pro Lys Ala Arg Asp Leu
 65 70 75 80
 Val Glu Lys Leu Leu Val Leu Asp Ala Thr Lys Arg Leu Gly Cys Glu
 85 90 95
 Glu Met

<210> 197
 <211> 35
 <212> PRT
 <213> Caenorhabditis elegans

<400> 197
 Leu Met Ala His Lys Phe Phe Glu Asn Val Asp Trp Val Asn Ile Ala
 1 5 10 15
 Asn Ile Lys Pro Pro Val Leu His Ala Tyr Ile Pro Ala Thr Phe Gly
 20 25 30
 Glu Pro Glu
 35

<210> 198
 <211> 17
 <212> PRT
 <213> Caenorhabditis elegans or Homo sapiens

<400> 198
 Leu Ala His Phe Phe Glu Val Trp Asn Pro Pro Leu Ala Tyr Pro Ala
 1 5 10 15
 Glu

<210> 199
 <211> 35
 <212> PRT
 <213> Homo sapiens

<400> 199

Leu	Lys	Ala	His	Pro	Phe	Phe	Glu	Ser	Val	Thr	Trp	Glu	Asn	Leu	His
1				5					10					15	
Gln	Gln	Thr	Pro	Pro	Lys	Leu	Thr	Ala	Tyr	Leu	Pro	Ala	Met	Ser	Glu
			20					25					30		
Asp	Asp	Glu													
		35													

<210> 200
 <211> 104
 <212> PRT
 <213> Caenorhabditis elegans

Leu	Glu	Glu	Gln	Arg	Val	Lys	Asn	Pro	Phe	His	Ile	Phe	Thr	Asn	Asn
1				5					10					15	
Ser	Leu	Ile	Leu	Lys	Gln	Gly	Tyr	Leu	Glu	Lys	Lys	Arg	Gly	Leu	Phe
			20					25					30		
Ala	Arg	Arg	Arg	Met	Phe	Leu	Leu	Thr	Glu	Gly	Pro	His	Leu	Leu	Tyr
			35					40				45			
Ile	Asp	Val	Pro	Asn	Leu	Val	Leu	Lys	Gly	Glu	Val	Pro	Trp	Thr	Pro
	50					55					60				
Cys	Met	Gln	Val	Glu	Leu	Lys	Asn	Ser	Gly	Thr	Phe	Phe	Ile	His	Thr
65					70					75					80
Pro	Asn	Arg	Val	Tyr	Tyr	Leu	Phe	Asp	Leu	Glu	Lys	Lys	Ala	Asp	Glu
				85					90					95	
Trp	Cys	Lys	Ala	Ile	Asn	Asp	Val								
							100								

<210> 201
 <211> 59
 <212> PRT
 <213> Caenorhabditis elegans or Homo sapiens

Leu	Glu	Gln	Asn	Pro	His	Phe	Asn	Leu	Ile	Leu	Lys	Gly	Lys	Gly	Leu
1				5					10					15	
Phe	Ala	Arg	Arg	Arg	Leu	Leu	Thr	Glu	Gly	Pro	His	Leu	Tyr	Asp	Asn
			20					25					30		
Val	Leu	Lys	Gly	Glu	Pro	Trp	Glu	Lys	Asn	Thr	Phe	Phe	His	Thr	Pro
		35					40					45			
Asn	Arg	Tyr	Tyr	Leu	Asp	Ala	Trp	Cys	Ile	Val					
	50						55								

<210> 202
 <211> 104
 <212> PRT
 <213> Homo sapiens

Leu	Glu	Lys	Gln	Ala	Gly	Gly	Asn	Pro	Trp	His	Gln	Phe	Val	Glu	Asn
1				5					10					15	

Asn	Leu	Ile	Leu	Lys	Met	Gly	Pro	Val	Asp	Lys	Arg	Lys	Gly	Leu	Phe
			20					25					30		
Ala	Arg	Arg	Arg	Gln	Leu	Leu	Leu	Thr	Glu	Gly	Pro	His	Leu	Tyr	Tyr
			35				40					45			
Val	Asp	Pro	Val	Asn	Lys	Val	Leu	Lys	Gly	Glu	Ile	Pro	Trp	Ser	Gln
			50			55					60				
Glu	Leu	Arg	Pro	Glu	Ala	Lys	Asn	Phe	Lys	Thr	Phe	Phe	Val	His	Thr
65					70					75				80	
Pro	Asn	Arg	Thr	Tyr	Tyr	Leu	Met	Asp	Pro	Ser	Gly	Asn	Ala	His	Lys
				85					90					95	
Trp	Cys	Arg	Lys	Ile	Gln	Glu	Val								
			100												

<210> 203

<211> 45

<212> PRT

<213> Homo sapiens

<400> 203

Lys	Leu	Glu	Asn	Leu	Met	Leu	Asp	Lys	Asp	Gly	His	Ile	Lys	Ile	Thr
1				5					10				15		
Asp	Phe	Gly	Leu	Cys	Lys	Glu	Gly	Ile	Lys	Asp	Gly	Ala	Thr	Met	Lys
			20					25				30			
Thr	Phe	Cys	Gly	Thr	Pro	Glu	Tyr	Leu	Ala	Pro	Glu	Val			
		35					40				45				

<210> 204

<211> 36

<212> PRT

<213> Homo sapiens or Caenorhabditis elegans

<400> 204

Lys	Leu	Glu	Asn	Leu	Leu	Asp	Lys	Asp	Gly	His	Ile	Lys	Ile	Asp	Phe
1				5					10				15		
Gly	Leu	Cys	Lys	Glu	Ile	Gly	Thr	Phe	Cys	Gly	Thr	Pro	Glu	Tyr	Leu
			20					25				30			
Ala	Pro	Glu	Val												
		35													

<210> 205

<211> 45

<212> PRT

<213> Caenorhabditis elegans

<400> 205

Lys	Leu	Glu	Asn	Leu	Leu	Leu	Asp	Lys	Asp	Gly	His	Ile	Lys	Ile	Ala
1				5					10				15		
Asp	Phe	Gly	Leu	Cys	Lys	Glu	Glu	Ile	Ser	Phe	Gly	Asp	Lys	Thr	Ser
			20					25				30			
Thr	Phe	Cys	Gly	Thr	Pro	Glu	Tyr	Leu	Ala	Pro	Glu	Val			
		35					40				45				

<210> 206
 <211> 62
 <212> PRT
 <213> Caenorhabditis elegans

<400> 206
 Leu Cys Lys Glu Glu Ile Lys Tyr Gly Asp Lys Thr Ser Thr Phe Cys
 1 5 10 15
 Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Ile Glu Asp Ile Asp Tyr
 20 25 30
 Asp Arg Ser Val Asp Trp Trp Gly Val Gly Val Val Met Tyr Glu Met
 35 40 45
 Met Cys Gly Arg Leu Pro Phe Ser Ala Lys Glu Asn Gly Lys
 50 55 60

<210> 207
 <211> 43
 <212> PRT
 <213> Caenorhabditis elegans or Mus musculus

<400> 207
 Leu Cys Lys Glu Ile Gly Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala
 1 5 10 15
 Pro Glu Val Glu Asp Asp Tyr Arg Val Asp Trp Trp Gly Gly Val Val
 20 25 30
 Met Tyr Glu Met Met Cys Gly Arg Leu Pro Phe
 35 40

<210> 208
 <211> 492
 <212> PRT
 <213> Caenorhabditis elegans

<400> 208
 Met Gly Val Asn Asp His Asp Val Ser Val Pro Leu Gln Glu Val Gln
 1 5 10 15
 Ser Arg Thr Val Glu Gly Lys Leu Thr Lys Cys Leu Ala Phe Ser Ala
 20 25 30
 Phe Val Ile Thr Leu Ala Ser Phe Gln Phe Gly Tyr His Ile Gly Cys
 35 40 45
 Val Asn Ala Pro Gly Gly Leu Ile Thr Glu Trp Ile Ile Gly Ser His
 50 55 60
 Lys Asp Leu Phe Asp Lys Glu Leu Ser Arg Glu Asn Ala Asp Leu Ala
 65 70 75 80
 Trp Ser Val Ala Val Ser Val Phe Ala Val Gly Gly Met Ile Gly Gly
 85 90 95
 Leu Ser Ser Gly Trp Leu Ala Asp Lys Val Gly Arg Arg Gly Ala Leu
 100 105 110
 Phe Tyr Asn Asn Leu Leu Ala Leu Ala Ala Ala Leu Met Gly Leu
 115 120 125
 Ala Lys Ser Val Gly Ala Tyr Pro Met Val Ile Leu Gly Arg Leu Ile

130		135		140													
Ile	Gly	Leu	Asn	Cys	Gly	Phe	Ser	Ser	Ala	Leu	Val	Pro	Met	Phe	Leu		
145					150					155					160		
Thr	Glu	Ile	Ser	Pro	Asn	Asn	Leu	Arg	Gly	Met	Leu	Gly	Ser	Leu	His		
				165					170					175			
Gln	Leu	Leu	Val	Thr	Ile	Ala	Ile	Leu	Val	Ser	Gln	Ile	Phe	Gly	Leu		
			180					185					190				
Pro	His	Leu	Leu	Gly	Thr	Gly	Asp	Arg	Trp	Pro	Leu	Ile	Phe	Ala	Phe		
	195						200					205					
Thr	Val	Val	Pro	Ala	Val	Leu	Gln	Leu	Ala	Leu	Leu	Met	Leu	Cys	Pro		
	210						215					220					
Glu	Ser	Pro	Lys	Tyr	Thr	Met	Ala	Val	Arg	Gly	Gln	Arg	Asn	Glu	Ala		
225					230					235					240		
Glu	Ser	Ala	Leu	Lys	Lys	Leu	Arg	Asp	Thr	Glu	Asp	Val	Ser	Thr	Glu		
				245					250					255			
Ile	Glu	Ala	Met	Gln	Glu	Glu	Ala	Thr	Ala	Ala	Gly	Val	Gln	Glu	Lys		
			260					265					270				
Pro	Lys	Met	Gly	Asp	Met	Phe	Lys	Gly	Ala	Leu	Leu	Trp	Pro	Met	Ser		
	275						280					285					
Ile	Ala	Ile	Met	Met	Met	Leu	Ala	Gln	Gln	Leu	Ser	Gly	Ile	Asn	Val		
	290					295					300						
Ala	Met	Phe	Tyr	Ser	Thr	Val	Ile	Phe	Arg	Gly	Ala	Gly	Leu	Thr	Gly		
305					310					315					320		
Asn	Glu	Pro	Phe	Tyr	Ala	Thr	Ile	Gly	Met	Gly	Ala	Val	Asn	Val	Ile		
				325					330					335			
Met	Thr	Leu	Ile	Ser	Val	Trp	Leu	Val	Asp	His	Pro	Lys	Phe	Gly	Arg		
		340					345						350				
Arg	Ser	Leu	Leu	Leu	Ala	Gly	Leu	Thr	Gly	Met	Phe	Val	Ser	Thr	Leu		
	355					360						365					
Leu	Leu	Val	Gly	Ala	Leu	Thr	Ile	Gln	Asn	Ser	Gly	Gly	Asp	Lys	Trp		
	370					375					380						
Ala	Ser	Tyr	Ser	Ala	Ile	Gly	Phe	Val	Leu	Leu	Phe	Val	Ile	Ser	Phe		
385					390					395					400		
Ala	Thr	Gly	Pro	Gly	Ala	Ile	Pro	Trp	Phe	Phe	Val	Ser	Glu	Ile	Phe		
				405					410					415			
Asp	Ser	Ser	Ala	Arg	Gly	Asn	Ala	Asn	Ser	Ile	Ala	Val	Met	Val	Asn		
		420					425						430				
Trp	Ala	Ala	Asn	Leu	Leu	Val	Gly	Leu	Thr	Phe	Leu	Pro	Ile	Asn	Asn		
	435					440						445					
Leu	Met	Gln	Gln	Tyr	Ser	Phe	Phe	Ile	Phe	Ser	Gly	Phe	Leu	Ala	Phe		
	450					455					460						
Phe	Ile	Phe	Tyr	Thr	Trp	Lys	Phe	Val	Pro	Glu	Thr	Lys	Gly	Lys	Ser		
465				470						475					480		
Ile	Glu	Gln	Ile	Gln	Ala	Glu	Phe	Glu	Lys	Arg	Lys						
				485					490								

<210> 209

<211> 22

<212> PRT

<213> Caenorhabditis elegans

<400> 209

Arg Asn Glu Ala Glu Ser Ala Leu Lys Lys Leu Arg Asp Thr Glu Asp
1 5 10 15
Val Ser Thr Glu Ile Glu
20

<210> 210

<211> 28

<212> DNA

<213> *Caenorhabditis elegans*

<400> 210

tctcgttggt tgccgtcgga tgtctgcc

28

<210> 211

<211> 223

<212> PRT

<213> Ascoris suum

<400> 211

Ala Lys Asn Asn Gly Glu Phe Val Arg Cys Val His Ser Val Gly Gln
1 5 10 15
Pro Lys Pro Val Ala Thr Lys Val Ile Asn His Trp Pro Cys Asn Pro
20 25 30
Glu Lys Thr Ile Ile Ala His Arg Pro Ala Glu Arg Glu Ile Trp Ser
35 40 45
Phe Gly Ser Gly Tyr Gly Gly Asn Ser Leu Leu Gly Lys Lys Cys Phe
50 55 60
Ala Leu Arg Ile Ala Met Asn Ile Gly Tyr Asp Glu Gly Trp Met Ala
65 70 75 80
Glu His Met Leu Ile Met Gly Val Thr Ser Pro Lys Gly Glu Glu Arg
85 90 95
Phe Val Ala Ala Ala Phe Pro Ser Ala Cys Gly Lys Thr Asn Leu Ala
100 105 110
Met Leu Glu Pro Thr Ile Pro Gly Trp Lys Val Arg Val Ile Gly Asp
115 120 125
Asp Ile Ala Trp Met Lys Phe Gly Ala Asp Gly Arg Leu Tyr Ala Ile
130 135 140
Asn Pro Glu Tyr Gly Phe Phe Gly Val Ala Pro Gly Thr Ser His Lys
145 150 155 160
Thr Asn Pro Met Ala Met Ala Ser Phe Gln Glu Asn Thr Ile Phe Thr
165 170 175
Asn Val Ala Glu Thr Ala Asp Gly Glu Tyr Phe Trp Glu Gly Leu Glu
180 185 190
His Glu Val Lys Asn Pro Lys Val Asp Met Ile Asn Trp Leu Gly Glu
195 200 205
Pro Trp His Ile Gly Asp Glu Ser Lys Ala Ala His Pro Asn Ser
210 215 220

<210> 212

<211> 176

<212> PRT

<213> Caenorhabditis elegans or Ascoris suum

<400> 212

Ala	Asn	Phe	Val	Arg	Cys	His	Ser	Val	Gly	Pro	Pro	Val	Val	Ile	Asn
1				5					10					15	
His	Trp	Pro	Cys	Asn	Pro	Glu	Ile	Ala	His	Arg	Pro	Glu	Arg	Glu	Ile
			20					25					30		
Trp	Ser	Phe	Gly	Ser	Gly	Tyr	Gly	Gly	Asn	Ser	Leu	Leu	Gly	Lys	Lys
		35					40					45			
Cys	Phe	Ala	Leu	Arg	Ile	Ala	Asn	Ile	Asp	Glu	Gly	Trp	Met	Ala	Glu
	50					55					60				
His	Met	Leu	Ile	Met	Gly	Val	Thr	Pro	Gly	Glu	Phe	Ala	Ala	Ala	Phe
65					70					75					80
Pro	Ser	Ala	Cys	Gly	Lys	Thr	Asn	Leu	Ala	Met	Leu	Glu	Pro	Thr	Pro
				85					90					95	
Gly	Trp	Lys	Val	Arg	Gly	Asp	Asp	Ile	Ala	Trp	Met	Lys	Phe	Gly	Asp
			100					105						110	
Gly	Arg	Leu	Tyr	Ala	Ile	Asn	Pro	Glu	Gly	Phe	Phe	Gly	Val	Ala	Pro
		115					120					125			
Gly	Thr	Ser	Lys	Thr	Asn	Pro	Met	Ala	Ala	Phe	Gln	Asn	Ile	Phe	Thr
	130					135					140				
Asn	Val	Ala	Glu	Thr	Ala	Gly	Glu	Tyr	Phe	Trp	Glu	Gly	Leu	Glu	Glu
145					150					155					160
Val	Asp	Trp	Leu	Gly	Glu	Trp	His	Ile	Gly	Ala	Ala	His	Pro	Asn	Ser
			165						170					175	

<210> 213

<211> 223

<212> PRT

<213> Caenorhabditis elegans

<400> 213

Ala	Leu	Gly	Asn	Gln	Asp	Phe	Val	Arg	Cys	Ile	His	Ser	Val	Gly	Leu
1				5					10					15	
Pro	Arg	Pro	Val	Lys	Gln	Arg	Val	Ile	Asn	His	Trp	Pro	Cys	Asn	Pro
			20					25					30		
Glu	Arg	Val	Leu	Ile	Ala	His	Arg	Pro	Pro	Glu	Arg	Glu	Ile	Trp	Ser
		35					40					45			
Phe	Gly	Ser	Gly	Tyr	Gly	Gly	Asn	Ser	Leu	Leu	Gly	Lys	Lys	Cys	Phe
	50					55					60				
Ala	Leu	Arg	Ile	Ala	Ser	Asn	Ile	Ala	Lys	Asp	Glu	Gly	Trp	Met	Ala
65					70					75					80
Glu	His	Met	Leu	Ile	Met	Gly	Val	Thr	Arg	Pro	Cys	Gly	Arg	Glu	His
			85						90					95	
Phe	Ile	Ala	Ala	Ala	Phe	Pro	Ser	Ala	Cys	Gly	Lys	Thr	Asn	Leu	Ala
		100						105					110		
Met	Leu	Glu	Pro	Thr	Leu	Pro	Gly	Trp	Lys	Val	Arg	Cys	Val	Gly	Asp
		115					120					125			
Asp	Ile	Ala	Trp	Met	Lys	Phe	Gly	Glu	Asp	Gly	Arg	Leu	Tyr	Ala	Ile
	130					135					140				

Asn	Pro	Glu	Ala	Gly	Phe	Phe	Gly	Val	Ala	Pro	Gly	Thr	Ser	Asn	Lys
145					150				155					160	
Thr	Asn	Pro	Met	Ala	Val	Ala	Thr	Phe	Gln	Lys	Asn	Ser	Ile	Phe	Thr
			165					170						175	
Asn	Val	Ala	Glu	Thr	Ala	Asn	Gly	Glu	Tyr	Phe	Trp	Glu	Gly	Leu	Glu
		180						185						190	
Asp	Glu	Ile	Ala	Asp	Lys	Asn	Val	Asp	Ile	Thr	Thr	Trp	Leu	Gly	Glu
	195					200						205			
Lys	Trp	His	Ile	Gly	Glu	Pro	Gly	Val	Ala	Ala	His	Pro	Asn	Ser	
	210					215					220				

<210> 214
 <211> 173
 <212> PRT
 <213> Ascoris suum

<400> 214

Lys	Gly	Asp	Phe	Val	Ser	Leu	Pro	Lys	His	Val	Gln	Arg	Phe	Val	Ala
1				5					10					15	
Glu	Lys	Ala	Glu	Leu	Met	Lys	Pro	Ser	Ala	Ile	Phe	Ile	Cys	Asp	Gly
		20						25					30		
Ser	Gln	Asn	Glu	Ala	Asp	Glu	Leu	Ile	Ala	Arg	Cys	Val	Glu	Arg	Gly
	35					40						45			
Val	Leu	Val	Pro	Leu	Lys	Ala	Tyr	Lys	Asn	Asn	Tyr	Leu	Cys	Arg	Thr
	50				55						60				
Asp	Pro	Arg	Asp	Val	Ala	Arg	Val	Glu	Ser	Lys	Thr	Trp	Met	Ile	Thr
65				70					75					80	
Pro	Glu	Lys	Tyr	Asp	Ser	Val	Cys	His	Thr	Pro	Glu	Gly	Val	Lys	Pro
			85					90						95	
Met	Met	Gly	Gln	Trp	Met	Ser	Pro	Asp	Glu	Phe	Gly	Lys	Glu	Leu	Asp
		100					105						110		
Asp	Arg	Phe	Pro	Gly	Cys	Met	Ala	Gly	Arg	Thr	Met	Tyr	Val	Ile	Pro
	115					120						125			
Tyr	Ser	Met	Gly	Pro	Val	Gly	Gly	Pro	Leu	Ser	Lys	Ile	Gly	Ile	Glu
	130					135					140				
Leu	Thr	Asp	Ser	Asp	Tyr	Val	Val	Leu	Cys	Met	Arg	Ile	Met	Thr	Arg
145				150					155						160
Met	Gly	Glu	Pro	Val	Leu	Lys	Ala	Leu	Ala	Lys	Asn	Asn			
			165					170							

<210> 215
 <211> 120
 <212> PRT
 <213> Caenorhabditis elegans or Ascoris suum

<400> 215

Gly	Asp	Phe	Leu	Pro	Val	Gln	Arg	Phe	Ala	Glu	Lys	Ala	Glu	Leu	Met
1			5					10						15	
Pro	Ile	Phe	Ile	Cys	Asp	Gly	Ser	Gln	Glu	Ala	Asp	Glu	Leu	Ile	Glu
		20					25						30		
Arg	Gly	Leu	Leu	Ala	Tyr	Asn	Asn	Tyr	Cys	Arg	Thr	Asp	Pro	Asp	Val

35	40	45
Ala Arg Val Glu Ser Lys Thr Trp Met Thr Lys Tyr Asp Val His Thr		
50	55	60
Glu Gly Val Pro Met Gly Trp Pro Glu Leu Asp Arg Phe Pro Gly Cys		
65	70	75
Met Ala Gly Arg Met Tyr Val Ile Pro Ser Met Gly Pro Val Gly Gly		80
	85	90
Pro Leu Ser Lys Ile Gly Ile Leu Thr Asp Ser Tyr Val Val Leu Met		95
	100	105
Arg Ile Met Thr Arg Val Ala Leu		110
115	120	

<210> 216
 <211> 173
 <212> PRT
 <213> Caenorhabditis elegans

<400> 216
Gln Gly Asp Phe His Leu Leu Pro Ala Lys Val Gln Arg Phe Ile Ala
1 5 10 15
Glu Lys Ala Glu Leu Met Arg Pro Arg Gly Ile Phe Ile Cys Asp Gly
20 25 30
Ser Gln His Glu Ala Asp Glu Leu Ile Asp Lys Leu Ile Glu Arg Gly
35 40 45
Met Leu Ser Lys Leu Glu Ala Tyr Glu Asn Asn Tyr Ile Cys Arg Thr
50 55 60
Asp Pro Lys Asp Val Ala Arg Val Glu Ser Lys Thr Trp Met Val Thr
65 70 75 80
Lys Asn Lys Tyr Asp Thr Val Thr His Thr Lys Glu Gly Val Glu Pro
85 90 95
Ile Met Gly His Trp Leu Ala Pro Glu Asp Leu Ala Thr Glu Leu Asp
100 105 110
Ser Arg Phe Pro Gly Cys Met Ala Gly Arg Ile Met Tyr Val Ile Pro
115 120 125
Phe Ser Met Gly Pro Val Gly Gly Pro Leu Ser Lys Ile Gly Ile Gln
130 135 140
Leu Thr Asp Ser Asn Tyr Val Val Leu Ser Met Arg Ile Met Thr Arg
145 150 155 160
Val Asn Asn Asp Val Trp Asp Ala Leu Gly Asn Gln Asp
165 170

<210> 217
 <211> 107
 <212> PRT
 <213> Ascoris suum

<400> 217
Arg Phe Thr Ala Pro Ala Gly Gln Cys Pro Ile Ile His Pro Asp Trp
1 5 10 15
Glu Lys Pro Glu Gly Val Pro Ile Asp Ala Ile Ile Phe Gly Gly Arg
20 25 30

Arg	Pro	Glu	Gly	Val	Pro	Leu	Val	Phe	Glu	Ser	Arg	Ser	Trp	Val	His
		35					40					45			
Gly	Ile	Phe	Val	Gly	Ala	Cys	Val	Lys	Ser	Glu	Ala	Thr	Ala	Ala	Ala
	50					55				60					
Glu	His	Thr	Gly	Lys	Gln	Val	Met	His	Asp	Pro	Met	Ala	Met	Arg	Pro
65					70				75						80
Phe	Met	Gly	Tyr	Asn	Phe	Gly	Arg	Tyr	Met	Arg	His	Trp	Met	Lys	Leu
				85				90						95	
Gly	Gln	Pro	Pro	His	Lys	Val	Pro	Lys	Ile	Phe					
			100					105							

<210> 218

<211> 77

<212> PRT

<213> Caenorhabditis elegans or Ascoris suum

<400> 218

Arg	Phe	Ala	Pro	Ala	Gln	Cys	Pro	Ile	Ile	His	Pro	Asp	Trp	Glu	Pro
1				5				10						15	
Gly	Val	Pro	Ile	Ala	Ile	Ile	Phe	Gly	Gly	Arg	Arg	Pro	Gly	Val	Pro
			20				25						30		
Leu	Glu	Ser	Trp	His	Gly	Phe	Gly	Cys	Lys	Ser	Glu	Ala	Thr	Ala	Ala
		35				40						45			
Ala	Glu	Thr	Gly	Lys	Val	Met	His	Asp	Pro	Met	Ala	Met	Arg	Pro	Phe
	50				55						60				
Met	Gly	Tyr	Asn	Phe	Gly	Tyr	His	Trp	Leu	Lys	Val	Phe			
65					70				75						

<210> 219

<211> 107

<212> PRT

<213> Caenorhabditis elegans

<400> 219

Arg	Phe	Ala	Ala	Pro	Ala	Asn	Gln	Cys	Pro	Ile	Ile	His	Pro	Asp	Trp
1				5				10						15	
Glu	Ser	Pro	Gln	Gly	Val	Pro	Ile	Glu	Ala	Ile	Ile	Phe	Gly	Gly	Arg
			20				25						30		
Arg	Pro	Gln	Gly	Val	Pro	Leu	Ile	Tyr	Glu	Thr	Asn	Ser	Trp	Glu	His
		35				40						45			
Gly	Val	Phe	Thr	Gly	Ser	Cys	Leu	Lys	Ser	Glu	Ala	Thr	Ala	Ala	Ala
	50					55					60				
Glu	Phe	Thr	Gly	Lys	Thr	Val	Met	His	Asp	Pro	Met	Ala	Met	Arg	Pro
65				70					75						80
Phe	Met	Gly	Tyr	Asn	Phe	Gly	Lys	Tyr	Leu	Gln	His	Trp	Leu	Asp	Leu
				85				90						95	
Lys	Thr	Asp	Ser	Arg	Lys	Val	Ile	Asp	Phe	Phe					
			100					105							

<210> 220

<211> 116

<212> PRT

<213> Ascoris suum

<400> 220

Val	Pro	Lys	Ile	Phe	His	Val	Asn	Trp	Phe	Arg	Gln	Ser	Ala	Asp	His
1				5					10					15	
Lys	Phe	Leu	Trp	Pro	Gly	Tyr	Gly	Asp	Asn	Ile	Arg	Val	Ile	Asp	Trp
		20						25					30		
Ile	Leu	Arg	Arg	Cys	Ser	Gly	Asp	Ala	Thr	Ile	Ala	Glu	Glu	Thr	Pro
		35					40					45			
Ile	Gly	Phe	Ile	Pro	Lys	Lys	Gly	Thr	Ile	Asn	Leu	Glu	Gly	Leu	Pro
	50					55					60				
Asn	Val	Asn	Trp	Asp	Glu	Leu	Met	Ser	Ile	Pro	Lys	Ser	Tyr	Trp	Leu
65					70					75					80
Glu	Asp	Met	Val	Glu	Thr	Lys	Thr	Phe	Phe	Glu	Asn	Gln	Val	Gly	Ser
			85					90						95	
Asp	Leu	Pro	Pro	Glu	Ile	Ala	Lys	Glu	Leu	Glu	Ala	Gln	Thr	Glu	Arg
			100					105						110	
Ile	Lys	Ala	Leu												
			115												

<210> 221

<211> 68

<212> PRT

<213> Caenorhabditis elegans or Ascoris suum

<400> 221

Pro	Lys	Ile	His	Val	Asn	Trp	Phe	Arg	Lys	Phe	Leu	Trp	Pro	Gly	Gly
1				5					10					15	
Asp	Asn	Ile	Arg	Val	Ile	Asp	Trp	Ile	Arg	Arg	Gly	Ile	Glu	Thr	Pro
			20					25					30		
Ile	Gly	Pro	Lys	Gly	Ile	Asn	Leu	Glu	Gly	Leu	Val	Asn	Trp	Asp	Glu
		35					40					45			
Leu	Met	Ser	Pro	Tyr	Trp	Asp	Glu	Phe	Gln	Val	Gly	Asp	Leu	Pro	Glu
	50					55					60				
Ala	Gln	Arg	Leu												
65															

<210> 222

<211> 116

<212> PRT

<213> Caenorhabditis elegans

<400> 222

Met	Pro	Lys	Ile	Tyr	His	Val	Asn	Trp	Phe	Arg	Lys	Asp	Ser	Asn	Asn
1				5					10					15	
Lys	Phe	Leu	Trp	Pro	Gly	Phe	Gly	Asp	Asn	Ile	Arg	Val	Ile	Asp	Trp
		20						25					30		
Ile	Ile	Arg	Arg	Leu	Asp	Gly	Glu	Gln	Glu	Ile	Gly	Val	Glu	Thr	Pro
		35					40					45			
Ile	Gly	Thr	Val	Pro	Ala	Lys	Gly	Ser	Ile	Asn	Leu	Glu	Gly	Leu	Gly

50		55		60
Glu Val Asn Trp Asp	Glu Leu Met Ser Val	Pro Ala Asp Tyr Trp Lys		
65	70	75	80	
Gln Asp Ala Gln Glu	Ile Arg Lys Phe Leu	Asp Glu Gln Val Gly Glu		
	85	90	95	
Asp Leu Pro Glu Pro	Val Arg Ala Glu Met	Asp Ala Gln Glu Lys Arg		
	100	105	110	
Val Gln Thr Leu				
115				

<210> 223
 <211> 36
 <212> PRT
 <213> Ascoris suum

<400> 223
Ser Leu Ser His Phe Lys Asp Asp Asp Phe Ala Val Val Ser Glu Val
1 5 10 15
Val Thr His Lys Gln Asn His Ile Pro Val Ile Lys Gly Asp Phe Val
20 25 30
Ser Leu Pro Lys
35

<210> 224
 <211> 15
 <212> PRT
 <213> Caenorhabditis elegans or Ascoris suum

<400> 224
Ser Leu Asp Phe Val Val Glu Val Val His Pro Lys Phe Ser Lys
1 5 10 15

<210> 225
 <211> 36
 <212> PRT
 <213> Caenorhabditis elegans

<400> 225
Ser Leu Arg Gln Ile Ser Glu Asp Ala Phe Tyr Val Val Asn Glu Val
1 5 10 15
Val Met Lys Arg Leu Gly His Val Pro Ile Leu Lys Val Ile Phe Glu
20 25 30
Ser Ser Glu Lys
35

<210> 226
 <211> 25
 <212> PRT
 <213> Ascoris suum

<400> 226

Gly Cys Met Ala Gly Arg Thr Met Tyr Val Ile Pro Tyr Ser Met Gly
 1 5 10 15
 Pro Val Gly Gly Pro Leu Ser Lys Ile
 20 25

<210> 227
 <211> 9
 <212> PRT
 <213> Caenorhabditis elegans or Ascoris suum

<400> 227
 Gly Cys Arg Val Pro Ser Pro Leu Lys
 1 5

<210> 228
 <211> 25
 <212> PRT
 <213> Caenorhabditis elegans

<400> 228
 Gly Cys Ser Gly Arg Arg Val Leu Cys Val Cys Pro Cys Ser His Ser
 1 5 10 15
 Ser Ser Ala Leu Pro Leu Gln Lys Val
 20 25

<210> 229
 <211> 16
 <212> PRT
 <213> Ascoris suum

<400> 229
 Leu Pro Asn Val Asn Trp Asp Glu Leu Met Ser Ile Pro Lys Ser Tyr
 1 5 10 15

<210> 230
 <211> 7
 <212> PRT
 <213> Caenorhabditis elegans or Ascoris suum

<400> 230
 Leu Asn Trp Ser Pro Ser Tyr
 1 5

<210> 231
 <211> 16
 <212> PRT
 <213> Caenorhabditis elegans

<400> 231
 Leu Glu Ser Phe Asn Trp Phe Ser Phe Val Ser Cys Pro Asp Ser Tyr
 1 5 10 15

<210> 232
 <211> 14
 <212> PRT
 <213> Ascoris suum

<400> 232
 Ser Val Cys His Thr Pro Glu Gly Val Lys Pro Met Met Gly
 1 5 10

<210> 233
 <211> 6
 <212> PRT
 <213> Caenorhabditis elegans or Ascoris suum

<400> 233
 Val His Pro Pro Met Gly
 1 5

<210> 234
 <211> 14
 <212> PRT
 <213> Caenorhabditis elegans

<400> 234
 Thr Val Met His Asp Pro Met Ala Met Arg Pro Phe Met Gly
 1 5 10

<210> 235
 <211> 197
 <212> PRT
 <213> Homo sapiens

<400> 235
 Ser Gly Phe Phe Asp Tyr Gly Ser Phe Ser Glu Ile Met Gln Pro Trp
 1 5 10 15
 Ala Gln Thr Val Val Val Gly Arg Ala Arg Leu Gly Gly Ile Pro Val
 20 25 30
 Gly Val Val Ala Val Glu Thr Arg Thr Val Glu Leu Ser Val Pro Ala
 35 40 45
 Asp Pro Ala Asn Leu Asp Ser Glu Ala Lys Ile Ile Gln Gln Ala Gly
 50 55 60
 Gln Val Trp Phe Pro Asp Ser Ala Phe Lys Thr Tyr Gln Ala Ile Lys
 65 70 75 80
 Asp Phe Asn Arg Glu Gly Leu Pro Leu Met Val Phe Ala Asn Trp Arg
 85 90 95
 Gly Phe Ser Gly Gly Met Lys Asp Met Tyr Asp Gln Val Leu Lys Phe
 100 105 110
 Gly Ala Tyr Ile Val Asp Gly Leu Arg Glu Cys Ser Gln Pro Val Met
 115 120 125
 Val Tyr Ile Pro Pro Gln Ala Glu Leu Arg Gly Gly Ser Trp Val Val
 130 135 140

Ile Asp Pro Thr Ile Asn Pro Arg His Met Glu Met Tyr Ala Asp Arg
 145 150 155 160
 Glu Ser Arg Gly Ser Val Leu Glu Pro Glu Gly Thr Val Glu Ile Lys
 165 170 175
 Phe Arg Lys Lys Asp Leu Val Lys Thr Met Arg Arg Val Asp Pro Val
 180 185 190
 Tyr Ile Arg Leu Ala
 195

<210> 236
 <211> 109
 <212> PRT
 <213> Caenorhabditis elegans or Homo sapiens

<400> 236
 Gly Asp Ser Phe Glu Ile Trp Ala Val Gly Arg Ala Arg Leu Gly Ile
 1 5 10 15
 Pro Gly Val Val Glu Arg Val Pro Ala Asp Pro Ala Ser Gln Ala Gly
 20 25 30
 Gln Val Trp Pro Asp Ser Ala Phe Lys Thr Ala Ile Asp Asn Glu Leu
 35 40 45
 Pro Leu Met Ala Arg Gly Phe Ser Gly Gly Lys Asp Met Tyr Asp Val
 50 55 60
 Leu Lys Phe Gly Ala Ile Val Asp Leu Pro Val Val Tyr Ile Pro Glu
 65 70 75 80
 Leu Arg Gly Gly Trp Val Asp Ile Pro Ala Asp Ser Arg Gly Leu Glu
 85 90 95
 Pro Val Ile Lys Phe Arg Lys Met Arg Asp Pro Tyr Leu
 100 105

<210> 237
 <211> 197
 <212> PRT
 <213> Caenorhabditis elegans

<400> 237
 Thr Gly Ile Cys Asp Thr Met Ser Phe Asp Glu Ile Cys Gly Asp Trp
 1 5 10 15
 Ala Lys Ser Ile Val Ala Gly Arg Ala Arg Leu Cys Gly Ile Pro Ile
 20 25 30
 Gly Val Val Ser Ser Glu Phe Arg Asn Phe Ser Thr Ile Val Pro Ala
 35 40 45
 Asp Pro Ala Ile Asp Gly Ser Gln Val Gln Asn Thr Gln Arg Ala Gly
 50 55 60
 Gln Val Trp Tyr Pro Asp Ser Ala Phe Lys Thr Ala Glu Ala Ile Asn
 65 70 75 80
 Asp Leu Asn Lys Glu Asn Leu Pro Leu Met Ile Ile Ala Ser Leu Arg
 85 90 95
 Gly Phe Ser Gly Gly Gln Lys Asp Met Tyr Asp Met Val Leu Lys Phe
 100 105 110
 Gly Ala Gln Ile Val Asp Ala Leu Ala Val Tyr Asn Arg Pro Val Ile

	115		120		125										
Val	Tyr	Ile	Pro	Glu	Ala	Gly	Glu	Leu	Arg	Gly	Gly	Ala	Trp	Ala	Val
	130					135					140				
Leu	Asp	Ser	Lys	Ile	Arg	Pro	Glu	Phe	Ile	His	Leu	Val	Ala	Asp	Glu
145					150					155					160
Lys	Ser	Arg	Gly	Gly	Ile	Leu	Glu	Pro	Asn	Ala	Val	Val	Gly	Ile	Lys
			165						170					175	
Phe	Arg	Lys	Pro	Met	Met	Met	Glu	Met	Met	Lys	Arg	Ser	Asp	Pro	Thr
			180					185					190		
Tyr	Ser	Lys	Leu	Ser											
	195														

<210> 238

<211> 124

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)...(124)

<223> Xaa = Any Amino Acid

<400> 238

Val	Gly	Tyr	Pro	Val	Met	Ile	Lys	Ala	Ser	Glu	Gly	Gly	Gly	Gly	Lys
1				5				10						15	
Gly	Ile	Arg	Lys	Val	Asn	Asn	Ala	Asp	Asp	Phe	Pro	Asn	Leu	Phe	Arg
			20				25					30			
Gln	Val	Gln	Ala	Glu	Val	Pro	Gly	Ser	Pro	Ile	Phe	Val	Met	Arg	Leu
	35					40					45				
Ala	Lys	Gln	Ser	Arg	His	Leu	Glu	Val	Gln	Ile	Leu	Ala	Asp	Gln	Tyr
	50				55				60						
Gly	Asn	Ala	Ile	Ser	Leu	Phe	Gly	Arg	Asp	Cys	Ser	Val	Gln	Arg	Arg
65				70				75						80	
His	Gln	Lys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			85				90						95		
Val	Phe	Glu	His	Met	Glu	Gln	Cys	Ala	Val	Lys	Leu	Ala	Lys	Met	Val
		100				105						110			
Gly	Tyr	Val	Ser	Ala	Gly	Thr	Val	Glu	Tyr	Leu	Tyr				
	115					120									

<210> 239

<211> 68

<212> PRT

<213> Homo sapiens or Caenorhabditis elegans

<400> 239

Gly	Pro	Met	Ile	Lys	Ala	Ser	Glu	Gly	Gly	Gly	Gly	Lys	Gly	Ile	Arg
1				5				10					15		
Lys	Asp	Phe	Phe	Val	Glu	Val	Gly	Ser	Pro	Ile	Phe	Met	Arg	His	Glu
			20				25					30			
Val	Gln	Leu	Ala	Asp	Tyr	Asn	Ile	Ser	Arg	Asp	Cys	Ser	Gln	Arg	Arg

35 40 45
 Gln Lys Met Ala Val Leu Ala Lys Val Gly Tyr Ser Ala Gly Thr Val
 50 55 60
 Glu Tyr Leu Tyr
 65

<210> 240
 <211> 124
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 240
 Ile Gly Phe Pro Leu Met Ile Lys Ala Ser Glu Gly Gly Gly Gly Lys
 1 5 10 15
 Gly Ile Arg Lys Cys Thr Lys Val Glu Asp Phe Lys Ser Met Phe Glu
 20 25 30
 Glu Val Ala Gln Glu Val Gln Gly Ser Pro Ile Phe Leu Met Lys Cys
 35 40 45
 Val Asp Gly Ala Arg His Ile Glu Val Gln Leu Leu Ala Asp Arg Tyr
 50 55 60
 Glu Asn Val Ile Ser Val Tyr Thr Arg Asp Cys Ser Ile Gln Arg Arg
 65 70 75 80
 Cys Gln Lys Ile Ile Glu Glu Ala Pro Ala Ile Ile Ala Ser Ser His
 85 90 95
 Ile Arg Lys Ser Met Gln Glu Asp Ala Val Arg Leu Ala Lys Tyr Val
 100 105 110
 Gly Tyr Glu Ser Ala Gly Thr Val Glu Tyr Leu Tyr
 115 120

<210> 241
 <211> 116
 <212> PRT
 <213> Rat

<400> 241
 Lys Glu Glu Gly Leu Gly Ala Glu Asn Leu Arg Gly Ser Gly Met Ile
 1 5 10 15
 Ala Gly Glu Ser Ser Leu Ala Tyr Asp Glu Ile Ile Thr Ile Ser Leu
 20 25 30
 Val Thr Cys Arg Ala Ile Gly Ile Gly Ala Tyr Leu Val Arg Leu Gly
 35 40 45
 Gln Arg Thr Ile Gln Val Glu Asn Ser His Leu Ile Leu Thr Gly Ala
 50 55 60
 Gly Ala Leu Asn Lys Val Leu Gly Arg Glu Val Tyr Thr Ser Asn Asn
 65 70 75 80
 Gln Leu Gly Gly Ile Gln Ile Met His Asn Asn Gly Val Thr His Cys
 85 90 95
 Thr Val Cys Asp Asp Phe Glu Gly Val Phe Thr Val Leu His Trp Leu
 100 105 110
 Ser Tyr Met Pro
 115

<210> 242
 <211> 65
 <212> PRT
 <213> Caenorhabditis elegans or Rat

<400> 242
 Lys Glu Gly Glu Asn Leu Gly Ser Gly Ile Ala Gly Glu Ala Tyr Glu
 1 5 10 15
 Thr Val Thr Arg Gly Ile Gly Ala Tyr Arg Leu Arg Gln Ser His Leu
 20 25 30
 Ile Leu Thr Gly Ala Leu Asn Leu Gly Val Tyr Thr Ser Asn Asn Gln
 35 40 45
 Leu Gly Gly Met Asn Gly Val Thr His Val Asp Glu Gly Val Trp Ser
 50 55 60
 Pro
 65

<210> 243
 <211> 116
 <212> PRT
 <213> Caenorhabditis elegans

<400> 243
 Lys Asn Glu Lys Ile Gly Val Glu Asn Leu Gln Gly Ser Gly Leu Ile
 1 5 10 15
 Ala Gly Glu Thr Ala Arg Ala Tyr Ala Glu Val Pro Thr Tyr Cys Tyr
 20 25 30
 Val Thr Gly Arg Ser Val Gly Ile Gly Ala Tyr Thr Ala Arg Leu Ala
 35 40 45
 His Arg Ile Val Gln His Lys Gln Ser His Leu Ile Leu Thr Gly Tyr
 50 55 60
 Glu Ala Leu Asn Thr Leu Leu Gly Lys Lys Val Tyr Thr Ser Asn Asn
 65 70 75 80
 Gln Leu Gly Gly Pro Glu Val Met Phe Arg Asn Gly Val Thr His Ala
 85 90 95
 Val Val Asp Asn Asp Leu Glu Gly Ile Ala Lys Val Ile Arg Trp Met
 100 105 110
 Ser Phe Leu Pro
 115

<210> 244
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 244
 His Val Ile Ala Ala Arg Ile Thr Ser Glu Asn Pro Asp Glu Gly Phe
 1 5 10 15
 Lys Pro Ser Ser Gly Thr Val Gln Glu Leu Asn Phe Arg Ser Asn Lys
 20 25 30
 Asn Val Trp Gly Tyr Phe Ser Val Ala Ala Ala Gly Gly Leu His Glu

	35					40					45						
Phe	Ala	Asp	Ser	Gln	Phe	Gly	His	Cys	Phe	Ser	Trp	Gly	Glu	Asn	Arg		
	50					55					60						
Glu	Glu	Ala	Ile	Ser	Asn	Met	Val	Val	Ala	Leu	Lys	Glu	Leu	Ser	Ile		
65					70					75					80		
Arg	Gly	Asp	Phe	Arg	Thr	Thr	Val	Glu	Tyr	Leu	Ile	Lys	Leu	Leu	Glu		
				85					90					95			
Thr	Glu	Ser	Phe	Gln	Leu	Asn	Arg	Ile	Asp	Thr	Gly	Trp	Leu	Asp	Arg		
			100					105					110				
Leu	Ile	Ala	Glu	Lys	Val	Gln											
	115																

<210> 245

<211> 59

<212> PRT

<213> Caenorhabditis elegans or Homo sapiens

<400> 245

His	Ile	Ala	Ala	Arg	Ile	Thr	Glu	Asn	Pro	Asp	Phe	Pro	Ser	Gly	Val		
1				5					10					15			
Glu	Asn	Phe	Ser	Trp	Tyr	Phe	Ser	Val	His	Phe	Ala	Asp	Ser	Gln	Phe		
			20					25					30				
Gly	His	Phe	Gly	Arg	Glu	Ala	Met	Leu	Lys	Ile	Arg	Phe	Thr	Val	Tyr		
		35					40					45					
Leu	Leu	Phe	Asn	Thr	Trp	Leu	Asp	Ile	Ala	Lys							
	50					55											

<210> 246

<211> 119

<212> PRT

<213> Caenorhabditis elegans

<400> 246

His	Ala	Ile	Ala	Ala	Arg	Ile	Thr	Cys	Glu	Asn	Pro	Asp	Asp	Ser	Phe		
1				5					10					15			
Arg	Pro	Ser	Thr	Gly	Lys	Val	Tyr	Glu	Ile	Asn	Phe	Pro	Ser	Ser	Gln		
			20					25					30				
Asp	Ala	Trp	Ala	Tyr	Phe	Ser	Val	Gly	Arg	Gly	Ser	Ser	Val	His	Gln		
		35					40					45					
Phe	Ala	Asp	Ser	Gln	Phe	Gly	His	Ile	Phe	Thr	Arg	Gly	Thr	Ser	Arg		
	50					55				60							
Thr	Glu	Ala	Met	Asn	Thr	Met	Cys	Ser	Thr	Leu	Lys	His	Met	Thr	Ile		
65				70						75				80			
Arg	Ser	Ser	Phe	Pro	Thr	Gln	Val	Asn	Tyr	Leu	Val	Asp	Leu	Met	His		
			85					90					95				
Asp	Ala	Asp	Phe	Ile	Asn	Asn	Ala	Phe	Asn	Thr	Gln	Trp	Leu	Asp	Lys		
		100						105					110				
Arg	Ile	Ala	Met	Lys	Ile	Lys											
	115																

<210> 247

<211> 90
 <212> PRT
 <213> Rat

<400> 247

Pro	Gly	Gly	Ala	Asn	Asn	Asn	Asn	Tyr	Ala	Asn	Val	Glu	Leu	Ile	Leu
1				5				10					15		
Asp	Ile	Ala	Lys	Arg	Ile	Pro	Val	Gln	Ala	Val	Trp	Ala	Gly	Trp	Gly
		20						25					30		
His	Ala	Ser	Glu	Asn	Pro	Lys	Leu	Pro	Glu	Leu	Leu	Leu	Lys	Asn	Gly
		35					40						45		
Ile	Ala	Phe	Met	Gly	Pro	Pro	Ser	Gln	Ala	Met	Trp	Ala	Leu	Gly	Asp
		50				55				60					
Lys	Ile	Ala	Ser	Ser	Ile	Val	Ala	Gln	Thr	Ala	Gly	Ile	Pro	Thr	Leu
65				70						75					80
Pro	Trp	Ser	Gly	Ser	Gly	Leu	Arg	Val	Asp						
				85					90						

<210> 248
 <211> 55
 <212> PRT
 <213> Caenorhabditis elegans or Rat

<400> 248

Pro	Gly	Asn	Asn	Asn	Ala	Asn	Val	Ile	Leu	Ala	Val	Ala	Val	Trp	Ala
1				5				10						15	
Gly	Trp	Gly	His	Ala	Ser	Glu	Asn	Pro	Leu	Pro	Leu	Ile	Ala	Phe	Gly
		20						25					30		
Pro	Pro	Ala	Met	Leu	Gly	Asp	Lys	Ile	Ala	Ser	Ile	Ala	Gln	Thr	Gly
		35					40						45		
Pro	Thr	Trp	Ser	Gly	Ser	Gly									
		50				55									

<210> 249
 <211> 90
 <212> PRT
 <213> Caenorhabditis elegans

<400> 249

Pro	Ser	Gly	Thr	Asn	Lys	Asn	Asn	Phe	Ala	Asn	Val	Asp	Glu	Ile	Leu
1				5				10						15	
Lys	His	Ala	Ile	Lys	Tyr	Glu	Val	Asp	Ala	Val	Trp	Ala	Gly	Trp	Gly
		20						25					30		
His	Ala	Ser	Glu	Asn	Pro	Asp	Leu	Pro	Arg	Arg	Leu	Asn	Asp	His	Asn
		35					40					45			
Ile	Ala	Phe	Ile	Gly	Pro	Pro	Ala	Ser	Ala	Met	Phe	Ser	Leu	Gly	Asp
		50				55				60					
Lys	Ile	Ala	Ser	Thr	Ile	Ile	Ala	Gln	Thr	Val	Gly	Val	Pro	Thr	Val
65				70						75					80
Ala	Trp	Ser	Gly	Ser	Gly	Ile	Thr	Met	Glu						
				85					90						

<210> 250
 <211> 67
 <212> PRT
 <213> Caenorhabditis elegans

<400> 250
 Val Ile Lys Asn Leu Gly Tyr Met Val Asp Asn His Gly Phe Val Pro
 1 5 10 15
 Asn Gly Gly Arg Val Tyr Tyr Leu Thr Arg Ser Gln Pro Pro Leu Leu
 20 25 30
 Thr Pro Met Val Tyr Glu Tyr Tyr Met Ser Thr Gly Asp Leu Asp Phe
 35 40 45
 Val Met Glu Ile Leu Pro Thr Leu Asp Lys Glu Tyr Glu Phe Trp Ile
 50 55 60
 Lys Asn Arg
 65

<210> 251
 <211> 36
 <212> PRT
 <213> Caenorhabditis elegans

<400> 251
 Ile Asn Gly Phe Val Pro Asn Gly Gly Arg Val Tyr Tyr Leu Arg Ser
 1 5 10 15
 Gln Pro Pro Pro Met Val Tyr Glu Tyr Tyr Thr Asp Val Pro Lys Glu
 20 25 30
 Tyr Phe Trp Arg
 35

<210> 252
 <211> 67
 <212> PRT
 <213> Caenorhabditis elegans

91
 <400> 252
 Met Ile Leu Asn Phe Ala His Ile Ile Glu Thr Tyr Gly Phe Val Pro
 1 5 10 15
 Asn Gly Gly Arg Val Tyr Tyr Leu Arg Arg Ser Gln Pro Pro Phe Phe
 20 25 30
 Ala Pro Met Val Tyr Glu Tyr Tyr Leu Ala Thr Gln Asp Ile Gln Leu
 35 40 45
 Val Ala Asp Leu Ile Pro Val Ile Glu Lys Glu Tyr Thr Phe Trp Ser
 50 55 60
 Glu Arg Arg
 65

<210> 253
 <211> 92
 <212> PRT
 <213> Caenorhabditis elegans

<400> 253

Met Asp Ser Ile Arg Thr Trp Ser Ile Ile Pro Ala Asp Leu Asn Ala
1 5 10 15
Phe Met Cys Ala Asn Ala Arg Ile Leu Ala Ser Leu Tyr Glu Ile Ala
20 25 30
Gly Asp Phe Lys Lys Val Lys Val Phe Glu Gln Arg Tyr Thr Trp Ala
35 40 45
Lys Arg Glu Met Arg Glu Leu His Trp Asn Glu Thr Asp Gly Ile Trp
50 55 60
Tyr Asp Tyr Asp Ile Glu Leu Lys Thr His Ser Asn Gln Tyr Tyr Val
65 70 75 80
Ser Asn Ala Val Pro Leu Tyr Ala Lys Cys Tyr Asp
85 90

<210> 254

<211> 32

<212> PRT

<213> Caenorhabditis elegans

<400> 254

Ile Thr Ile Pro Asp Leu Asn Ala Phe Cys Asn Ile Tyr Gly Lys Arg
1 5 10 15
Thr Trp Tyr Asp Tyr Thr His Ser Asn Ala Val Pro Leu Cys Tyr Asp
20 25 30

<210> 255

<211> 92

<212> PRT

<213> Caenorhabditis elegans

<400> 255

91
Ile Ser Thr Ile Glu Thr Thr Asn Ile Val Pro Val Asp Leu Asn Ala
1 5 10 15
Phe Leu Cys Tyr Asn Met Asn Ile Met Gln Leu Phe Tyr Lys Leu Thr
20 25 30
Gly Asn Pro Leu Lys His Leu Glu Trp Ser Ser Arg Phe Thr Asn Phe
35 40 45
Arg Glu Ala Phe Thr Lys Val Phe Tyr Val Pro Ala Arg Lys Gly Trp
50 55 60
Tyr Asp Tyr Asn Leu Arg Thr Leu Thr His Asn Thr Asp Phe Phe Ala
65 70 75 80
Ser Asn Ala Val Pro Leu Phe Ser Gln Cys Tyr Asp
85 90

<210> 256

<211> 102

<212> PRT

<213> Caenorhabditis elegans

<400> 256

Val His Asp Tyr Leu Glu Arg Gln Gly Leu Leu Lys Tyr Thr Lys Gly

1		5		10		15									
Leu	Pro	Thr	Ser	Leu	Ala	Met	Ser	Ser	Thr	Gln	Gln	Trp	Asp	Lys	Glu
			20					25					30		
Asn	Ala	Trp	Pro	Pro	Met	Ile	His	Met	Val	Ile	Glu	Gly	Phe	Arg	Thr
		35					40					45			
Thr	Gly	Asp	Ile	Lys	Leu	Met	Lys	Val	Ala	Glu	Lys	Met	Ala	Thr	Ser
		50				55					60				
Trp	Leu	Thr	Gly	Thr	Tyr	Gln	Ser	Phe	Ile	Arg	Thr	His	Ala	Met	Phe
65					70					75					80
Glu	Lys	Tyr	Asn	Val	Thr	Pro	His	Thr	Glu	Glu	Thr	Ser	Gly	Gly	Gly
			85						90					95	
Gly	Gly	Glu	Tyr	Glu	Val										
			100												

<210> 257
 <211> 37
 <212> PRT
 <213> Caenorhabditis elegans

<400> 257
Val Gly Gly Pro Thr Ser Gln Gln Trp Asp Asn Trp Pro Met His Met
1 5 10 15
Ile Glu Gly Arg Leu Ala Ala Trp Leu Gln Phe Met Glu Lys Tyr Asn
20 25 30
Val Gly Gly Glu Val
35

<210> 258
 <211> 102
 <212> PRT
 <213> Caenorhabditis elegans

<400> 258
Val Tyr Asn Glu Met Gln Asn Ser Gly Ala Phe Ser Ile Pro Gly Gly
1 5 10 15
Ile Pro Thr Ser Met Asn Glu Glu Thr Asn Gln Gln Trp Asp Phe Pro
20 25 30
Asn Gly Trp Ser Pro Met Asn His Met Ile Ile Glu Gly Leu Arg Lys
35 40 45
Ser Asn Asn Pro Ile Leu Gln Gln Lys Ala Phe Thr Leu Ala Glu Lys
50 55 60
Trp Leu Glu Thr Asn Met Gln Thr Phe Asn Val Ser Asp Glu Met Trp
65 70 75 80
Glu Lys Tyr Asn Val Lys Glu Pro Leu Gly Lys Leu Ala Thr Gly Gly
85 90 95
Glu Tyr Glu Val Gln Val
100

<210> 259
 <211> 58
 <212> PRT

<213> Caenorhabditis elegans

<400> 259

Tyr	Gln	Tyr	Lys	Ala	Lys	Leu	Lys	Val	Pro	Arg	Pro	Glu	Ser	Tyr	Arg
1				5					10					15	
Glu	Asp	Ser	Glu	Leu	Ala	Glu	His	Leu	Gln	Thr	Glu	Ala	Glu	Lys	Ile
			20					25						30	
Gln	Met	Trp	Ser	Glu	Ile	Ala	Ser	Ala	Ala	Glu	Thr	Gly	Trp	Asp	Phe
			35				40						45		
Ser	Thr	Arg	Trp	Phe	Ser	Gln	Asn	Gly	Asp						
			50				55								

<210> 260

<211> 29

<212> PRT

<213> Caenorhabditis elegans

<400> 260

Gln	Tyr	Pro	Arg	Pro	Glu	Ser	Arg	Glu	Asp	Ala	Glu	His	Thr	Lys	Gln
1				5					10					15	
Ser	Ala	Ala	Glu	Gly	Trp	Asp	Phe	Ser	Arg	Trp	Phe	Asp			
			20					25							

<210> 261

<211> 58

<212> PRT

<213> Caenorhabditis elegans

<400> 261

91

Phe	Gln	Tyr	Arg	Thr	Glu	Ala	Glu	Thr	Pro	Arg	Pro	Glu	Ser	Phe	Arg
1				5					10					15	
Glu	Asp	Val	Leu	Ser	Ala	Glu	His	Phe	Thr	Thr	Lys	Asp	Arg	Lys	Lys
			20					25					30		
Gln	Phe	Phe	Lys	Asp	Leu	Gly	Ser	Ala	Ala	Glu	Ser	Gly	Trp	Asp	Phe
			35				40						45		
Ser	Ser	Arg	Trp	Phe	Lys	Asn	His	Lys	Asp						
			50				55								

<210> 262

<211> 21

<212> PRT

<213> Caenorhabditis elegans

<400> 262

Gln	Thr	Gly	Phe	Gly	Trp	Thr	Asn	Gly	Val	Ile	Leu	Asp	Leu	Leu	Asp
1				5					10					15	
Lys	Tyr	Gly	Asp	Gln											
			20												

<210> 263

<211> 13

<212> PRT
<213> Caenorhabditis elegans

<400> 263
Gln Gly Phe Gly Trp Thr Asn Gly Leu Asp Leu Tyr Asp
1 5 10

<210> 264
<211> 21
<212> PRT
<213> Caenorhabditis elegans

<400> 264
Gln Ala Gly Phe Gly Trp Thr Asn Gly Ala Ala Leu Asp Leu Ile Phe
1 5 10 15
Thr Tyr Ser Asp Arg
20

<210> 265
<211> 24
<212> PRT
<213> Caenorhabditis elegans

<400> 265
Ser Ser Ser Thr Ala Ser Lys Phe Ser Phe Ser Leu Ser Asn Ile Thr
1 5 10 15
Phe Val Val Phe Ile Leu Tyr Ile
20

<210> 266
<211> 10
<212> PRT
<213> Caenorhabditis elegans

91 <400> 266
Ser Ser Ser Phe Ser Val Phe Leu Tyr Ile
1 5 10

<210> 267
<211> 24
<212> PRT
<213> Caenorhabditis elegans

<400> 267
Thr Ser Ser Ser Ser Ser Thr Phe Gly Tyr Ser Asn Ile Leu Thr Leu
1 5 10 15
Ile Thr Val Phe Val Leu Tyr Ile
20

<210> 268
<211> 7

<212> PRT
<213> Caenorhabditis elegans

<400> 268
Gly Gly Glu Tyr Glu Val Gln
1 5

<210> 269
<211> 7
<212> PRT
<213> Caenorhabditis elegans

<400> 269
Gly Gly Glu Tyr Glu Val Gln
1 5

<210> 270
<211> 7
<212> PRT
<213> Caenorhabditis elegans

<400> 270
Gly Gly Glu Tyr Glu Val Gln
1 5

<210> 271
<211> 18
<212> PRT
<213> Caenorhabditis elegans

<400> 271
Lys Thr His Ser Asn Gln Tyr Tyr Val Ser Asn Ala Val Pro Leu Tyr
1 5 10 15
Ala Lys

<210> 272
<211> 8
<212> PRT
<213> Caenorhabditis elegans

<400> 272
Lys Tyr Tyr Val Ser Pro Tyr Lys
1 5

<210> 273
<211> 18
<212> PRT
<213> Caenorhabditis elegans

<400> 273

Lys Phe Thr Ala His Pro Tyr Tyr Val Ser Arg Thr Pro Pro Arg Tyr
 1 5 10 15
 His Lys

<210> 274
 <211> 67
 <212> PRT
 <213> Caenorhabditis elegans

<400> 274
 Val Ile Lys Asn Leu Gly Tyr Met Val Asp Asn His Gly Phe Val Pro
 1 5 10 15
 Asn Gly Gly Arg Val Tyr Tyr Leu Thr Arg Ser Gln Pro Pro Leu Leu
 20 25 30
 Thr Pro Met Val Tyr Glu Tyr Tyr Met Ser Thr Gly Asp Leu Asp Phe
 35 40 45
 Val Met Glu Ile Leu Pro Thr Leu Asp Lys Glu Tyr Glu Phe Trp Ile
 50 55 60
 Lys Asn Arg
 65

<210> 275
 <211> 43
 <212> PRT
 <213> Caenorhabditis elegans

<400> 275
 Ile Asn Leu Met Val Asp Gly Phe Val Pro Asn Gly Gly Arg Val Tyr
 1 5 10 15
 Tyr Leu Arg Ser Gln Pro Pro Leu Met Val Tyr Glu Tyr Thr Asp Phe
 20 25 30
 Val Glu Leu Pro Thr Leu Lys Glu Phe Trp Arg
 35 40

91 <210> 276
 <211> 67
 <212> PRT
 <213> Caenorhabditis elegans

<400> 276
 Met Ile Arg Asn Leu Ala Ser Met Val Asp Lys Tyr Gly Phe Val Pro
 1 5 10 15
 Asn Gly Gly Arg Val Tyr Tyr Leu Gln Arg Ser Gln Pro Pro Phe Leu
 20 25 30
 Ala Ala Met Val Tyr Glu Leu Tyr Glu Ala Thr Asn Asp Lys Ala Phe
 35 40 45
 Val Ala Glu Leu Leu Pro Thr Leu Leu Lys Glu Leu Asn Phe Trp Asn
 50 55 60
 Glu Lys Arg
 65

<210> 277
 <211> 84
 <212> PRT
 <213> Caenorhabditis elegans

<400> 277
 Ile Ile Pro Ala Asp Leu Asn Ala Phe Met Cys Ala Asn Ala Arg Ile
 1 5 10 15
 Leu Ala Ser Leu Tyr Glu Ile Ala Gly Asp Phe Lys Lys Val Lys Val
 20 25 30
 Phe Glu Gln Arg Tyr Thr Trp Ala Lys Arg Glu Met Arg Glu Leu His
 35 40 45
 Trp Asn Glu Thr Asp Gly Ile Trp Tyr Asp Tyr Asp Ile Glu Leu Lys
 50 55 60
 Thr His Ser Asn Gln Tyr Tyr Val Ser Asn Ala Val Pro Leu Tyr Ala
 65 70 75 80
 Lys Cys Tyr Asp

<210> 278
 <211> 31
 <212> PRT
 <213> Caenorhabditis elegans

<400> 278
 Pro Asp Leu Asn Cys Asn Ile Leu Tyr Glu Gly Asp Lys Phe Asn Thr
 1 5 10 15
 Asp Gly Trp Tyr Asp Tyr His Tyr Ser Ala Val Pro Leu Cys Tyr
 20 25 30

<210> 279
 <211> 84
 <212> PRT
 <213> Caenorhabditis elegans

91 <400> 279
 Val Leu Pro Val Asp Leu Asn Gly Leu Leu Cys Trp Asn Met Asp Ile
 1 5 10 15
 Met Glu Tyr Leu Tyr Glu Gln Ile Gly Asp Thr Lys Asn Ser Gln Ile
 20 25 30
 Phe Arg Asn Lys Arg Ala Asp Phe Arg Asp Thr Val Gln Asn Val Phe
 35 40 45
 Tyr Asn Arg Thr Asp Gly Thr Trp Tyr Asp Tyr Asn Leu Arg Thr Gln
 50 55 60
 Ser His Asn Pro Arg Phe Tyr Thr Ser Thr Ala Val Pro Leu Phe Thr
 65 70 75 80
 Asn Cys Tyr Asn

<210> 280
 <211> 48

<212> PRT

<213> Caenorhabditis elegans

<400> 280

Tyr	Leu	Glu	Arg	Gln	Gly	Leu	Leu	Lys	Tyr	Thr	Lys	Gly	Leu	Pro	Thr
1				5				10						15	
Ser	Leu	Ala	Met	Ser	Ser	Thr	Gln	Gln	Trp	Asp	Lys	Glu	Asn	Ala	Trp
		20					25						30		
Pro	Pro	Met	Ile	His	Met	Val	Ile	Glu	Gly	Phe	Arg	Thr	Thr	Gly	Asp
		35					40						45		

<210> 281

<211> 20

<212> PRT

<213> Caenorhabditis elegans

<400> 281

Gly	Tyr	Gly	Pro	Thr	Ser	Ser	Gln	Gln	Trp	Asp	Asn	Trp	Pro	His	Met
1				5					10					15	
Ile	Glu	Gly	Arg												
		20													

<210> 282

<211> 48

<212> PRT

<213> Caenorhabditis elegans

<400> 282

Phe	Phe	Gln	Lys	Met	Gly	Val	Phe	Thr	Tyr	Pro	Gly	Gly	Ile	Pro	Thr
1				5					10					15	
Ser	Met	Ser	Gln	Glu	Ser	Asp	Gln	Gln	Trp	Asp	Phe	Pro	Asn	Gly	Trp
		20					25						30		
Ser	Pro	Asn	Asn	His	Met	Ile	Ile	Glu	Gly	Leu	Arg	Lys	Ser	Ala	Asn
		35					40					45			

91 <210> 283

<211> 18

<212> PRT

<213> Caenorhabditis elegans

<400> 283

Glu	Ile	Ala	Ser	Ala	Ala	Glu	Thr	Gly	Trp	Asp	Phe	Ser	Thr	Arg	Trp
1				5					10					15	
Phe	Ser														

<210> 284

<211> 15

<212> PRT

<213> Caenorhabditis elegans

<400> 284

Ala Ser Ala Ala Glu Gly Trp Asp Phe Ser Thr Arg Trp Phe Ser
1 5 10 15

<210> 285

<211> 18

<212> PRT

<213> Caenorhabditis elegans

<400> 285

Asp Leu Ala Ser Ala Ala Glu Ser Gly Trp Asp Phe Ser Thr Arg Trp
1 5 10 15
Phe Ser

<210> 286

<211> 40

<212> PRT

<213> Caenorhabditis elegans

<400> 286

Lys Gln Phe Pro Tyr Tyr Gln Tyr Lys Ala Lys Leu Lys Val Pro Arg
1 5 10 15
Pro Glu Ser Tyr Arg Glu Asp Ser Glu Leu Ala Glu His Leu Gln Thr
20 25 30
Glu Ala Glu Lys Ile Gln Met Trp
35 40

<210> 287

<211> 18

<212> PRT

<213> Caenorhabditis elegans

<400> 287

91 Lys Phe Tyr Gln Tyr Lys Val Pro Arg Pro Glu Ser Tyr Arg Asp Leu
1 5 10 15
Ala Gln

<210> 288

<211> 40

<212> PRT

<213> Caenorhabditis elegans

<400> 288

Lys Ser Phe Lys Val Tyr Gln Tyr Lys Thr Ala Ser Asn Val Pro Arg
1 5 10 15
Pro Glu Ser Tyr Arg Val Asp Thr Gln Asn Ser Ala Lys Leu Ala Asn
20 25 30
Gly Ala Asp Gln Gln Gln Phe Tyr
35 40

<210> 289
<211> 21
<212> PRT
<213> Caenorhabditis elegans

<400> 289
Gln Thr Gly Phe Gly Trp Thr Asn Gly Val Ile Leu Asp Leu Leu Asp
1 5 10 15
Lys Tyr Gly Asp Gln
20

<210> 290
<211> 14
<212> PRT
<213> Caenorhabditis elegans

<400> 290
Gln Gly Phe Gly Trp Asn Gly Ile Leu Asp Leu Leu Tyr Asp
1 5 10

<210> 291
<211> 21
<212> PRT
<213> Caenorhabditis elegans

<400> 291
Gln Asp Gly Phe Gly Trp Ser Asn Gly Ala Ile Leu Asp Leu Leu Leu
1 5 10 15
Thr Tyr Asn Asp Arg
20

<210> 292
<211> 27
<212> PRT
<213> Caenorhabditis elegans

61
<400> 292
Tyr Gly Asp Gln Phe Ala Ser Ser Ser Thr Ala Ser Lys Phe Ser Phe
1 5 10 15
Ser Leu Ser Asn Ile Thr Phe Val Val Phe Ile
20 25

<210> 293
<211> 11
<212> PRT
<213> Caenorhabditis elegans

<400> 293
Tyr Phe Ala Ser Ser Ser Ala Ser Phe Ser Phe
1 5 10

<210> 294
<211> 26
<212> PRT
<213> Caenorhabditis elegans

<400> 294
Tyr Asn Pro Phe Ala Ser Ser Ser Asp Ala Ser Ser Cys Pro Phe Ser
1 5 10 15
Thr Asn Ser Val Ile Phe Ser Ile Leu Val
20 25

<210> 295
<211> 9
<212> PRT
<213> Caenorhabditis elegans

<400> 295
Gly Gly Gly Gly Glu Tyr Glu Val Gln
1 5

<210> 296
<211> 7
<212> PRT
<213> Caenorhabditis elegans

<400> 296
Gly Gly Gly Glu Tyr Val Gln
1 5

<210> 297
<211> 9
<212> PRT
<213> Caenorhabditis elegans

91
<400> 297
Gly Ser Gly Gly Glu Tyr Asp Val Gln
1 5

<210> 298
<211> 14
<212> PRT
<213> Caenorhabditis elegans

<400> 298
Asn Gln Tyr Tyr Val Ser Asn Ala Val Pro Leu Tyr Ala Lys
1 5 10

<210> 299
<211> 7
<212> PRT
<213> Caenorhabditis elegans

<400> 299

Asn Tyr Tyr Val Leu Tyr Lys

1 5

<210> 300

<211> 14

<212> PRT

<213> Caenorhabditis elegans

<400> 300

Asn His Tyr Tyr Ile Ile Gln Met Val Ser Leu Tyr Thr Lys

1 5 10

<210> 301

<211> 30

<212> PRT

<213> Caenorhabditis elegans

<400> 301

Asp Gln Phe Ala Ser Ser Ser Thr Ala Ser Lys Phe Ser Phe Ser Leu

1 5 10 15

Ser Asn Ile Thr Phe Val Val Phe Ile Leu Tyr Ile Phe Ser

20 25 30

<210> 302

<211> 11

<212> PRT

<213> Caenorhabditis elegans

<400> 302

Asp Gln Phe Ser Ser Lys Phe Ser Phe Phe Ser

1 5 10

<210> 303

<211> 30

<212> PRT

<213> Caenorhabditis elegans

<400> 303

Asp Gln Phe Val Ile Ser Phe Ile Cys Ser Lys Phe Ser Ser Lys Asn

1 5 10 15

Lys Lys Leu Tyr Phe Cys Pro Ser His Phe Ser Leu Phe Ser

20 25 30

<210> 304

<211> 9

<212> PRT

<213> Caenorhabditis elegans

<220>

<221> VARIANT

<222> (1)...(9)

<223> Xaa = Any Amino Acid

<400> 304

Gly Trp Asp Xaa Xaa Ile Ala Pro Lys
1 5

<210> 305

<211> 62

<212> PRT

<213> Mus musculus

<400> 305

Leu Cys Lys Glu Gly Ile Ser Asp Gly Ala Thr Met Lys Thr Phe Cys
1 5 10 15
Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu Glu Asp Asn Asp Tyr
20 25 30
Gly Arg Ala Val Asp Trp Trp Gly Leu Gly Val Val Met Tyr Glu Met
35 40 45
Met Cys Gly Arg Leu Pro Phe Tyr Asn Gln Asp His Glu Arg
50 55 60

<210> 306

<211> 9

<212> PRT

<213> Caenorhabditis elegans

<400> 306

Gln Ala Leu Thr Gln Met Asn Pro Lys
1 5

<210> 307

<211> 11

<212> PRT

<213> Caenorhabditis elegans

61
<400> 307

Gln Ala Leu Thr Gln Cys Val Asp Ser Met Arg
1 5 10

<210> 308

<211> 248

<212> PRT

<213> Homo sapiens

<400> 308

Ile Phe Arg Thr Ala Val Ser Ser Asn Arg Cys Arg Thr Glu Tyr Gln
1 5 10 15
Asn Ile Asp Leu Asp Cys Ala Tyr Ile Thr Asp Arg Ile Ile Ala Ile
20 25 30
Gly Tyr Pro Ala Thr Gly Ile Glu Ala Asn Phe Arg Asn Ser Lys Val

130	135	140
Ala Gln Glu Ala Leu Asp Phe Tyr Gly Glu Val Arg Thr Arg Asp Lys		
145	150	155
Lys Gly Val Thr Ile Pro Ser Gln Arg Arg Tyr Val Tyr Tyr Tyr Ser		160
	165	170
Tyr Leu Leu Lys Asn His Leu Asp Tyr Arg Pro Val Ala Leu Leu Phe		175
	180	185
His Lys Met Met Phe Glu Thr Ile Pro Met Phe Ser Gly Gly Thr Cys		190
	195	200
Asn Pro Gln Phe Val Val Cys Gln Leu Lys Val Lys Ile Tyr Ser Ser		205
	210	215
Asn Ser Gly Pro Thr Arg Arg Glu Asp Lys Phe Asn Tyr Phe Glu Phe		220
225	230	235
Pro Gln Pro Leu Pro Val Cys Gly Asp		240
	245	

<210> 310
 <211> 962
 <212> PRT
 <213> Caenorhabditis elegans

<400> 310

Met Val Thr Pro Pro Pro Asp Val Pro Ser Thr Ser Thr Arg Ser Met		
1	5	10
Ala Arg Asp Leu Gln Glu Asn Pro Asn Arg Gln Pro Gly Glu Pro Arg		15
	20	25
Val Ser Glu Pro Tyr His Asn Ser Ile Val Glu Arg Ile Arg His Ile		30
	35	40
Phe Arg Thr Ala Val Ser Ser Asn Arg Cys Arg Thr Glu Tyr Gln Asn		45
	50	55
Ile Asp Leu Asp Cys Ala Tyr Ile Thr Asp Arg Ile Ile Ala Ile Gly		60
65	70	75
Tyr Pro Ala Thr Gly Ile Glu Ala Asn Phe Arg Asn Ser Lys Val Gln		80
	85	90
Thr Gln Gln Phe Leu Thr Arg Arg His Gly Lys Gly Asn Val Lys Val		95
	100	105
Phe Asn Leu Arg Gly Gly Tyr Tyr Tyr Asp Ala Asp Asn Phe Asp Gly		110
	115	120
Asn Val Ile Cys Phe Asp Met Thr Asp His His Pro Pro Ser Leu Glu		125
	130	135
Leu Met Ala Pro Phe Cys Arg Glu Ala Lys Glu Trp Leu Glu Ala Asp		140
145	150	155
Asp Lys His Val Ile Ala Val His Cys Lys Ala Gly Lys Gly Arg Thr		160
	165	170
Gly Val Met Ile Cys Ala Leu Leu Ile Tyr Ile Asn Phe Tyr Pro Ser		175
	180	185
Pro Arg Gln Ile Leu Asp Tyr Tyr Ser Ile Ile Arg Thr Lys Asn Asn		190
	195	200
Lys Gly Val Thr Ile Pro Ser Gln Arg Arg Tyr Ile Tyr Tyr Tyr His		205
	210	215
Lys Leu Arg Glu Arg Glu Leu Asn Tyr Leu Pro Leu Arg Met Gln Leu		220

225 230 235 240
 Ile Gly Val Tyr Val Glu Arg Pro Pro Lys Thr Trp Gly Gly Gly Ser
 245 250 255
 Lys Ile Lys Val Glu Val Gly Asn Gly Ser Thr Ile Leu Phe Lys Pro
 260 265 270
 Asp Pro Leu Ile Ile Ser Lys Ser Asn His Gln Arg Glu Arg Ala Thr
 275 280 285
 Trp Leu Asn Asn Cys Asp Thr Pro Asn Glu Phe Asp Thr Gly Glu Gln
 290 295 300
 Lys Tyr His Gly Phe Val Ser Lys Arg Ala Tyr Cys Phe Met Val Pro
 305 310 315 320
 Glu Asp Ala Pro Val Phe Val Glu Gly Asp Val Arg Ile Asp Ile Arg
 325 330 335
 Glu Ile Gly Phe Leu Lys Lys Phe Ser Asp Gly Lys Ile Gly His Val
 340 345 350
 Trp Phe Asn Thr Met Phe Ala Cys Asp Gly Gly Leu Asn Gly Gly His
 355 360 365
 Phe Glu Tyr Val Asp Lys Thr Gln Pro Tyr Ile Gly Asp Asp Thr Ser
 370 375 380
 Ile Gly Arg Lys Asn Gly Met Arg Arg Asn Glu Thr Pro Met Arg Lys
 385 390 395 400
 Ile Asp Pro Glu Thr Gly Asn Glu Phe Glu Ser Pro Trp Gln Ile Val
 405 410 415
 Asn Pro Pro Gly Leu Glu Lys His Ile Thr Glu Glu Gln Ala Met Glu
 420 425 430
 Asn Tyr Thr Asn Tyr Gly Met Ile Pro Pro Arg Tyr Thr Ile Ser Lys
 435 440 445
 Ile Leu His Glu Lys His Glu Lys Gly Ile Val Lys Asp Asp Tyr Asn
 450 455 460
 Asp Arg Lys Leu Pro Met Gly Asp Lys Ser Tyr Thr Glu Ser Gly Lys
 465 470 475 480
 Ser Gly Asp Ile Arg Gly Val Gly Gly Pro Phe Glu Ile Pro Tyr Lys
 485 490 495
 Ala Glu Glu His Val Leu Thr Phe Pro Val Tyr Glu Met Asp Arg Ala
 500 505 510
 Leu Lys Ser Lys Asp Leu Asn Asn Gly Met Lys Leu His Val Val Leu
 515 520 525
 Arg Cys Val Asp Thr Arg Asp Ser Lys Met Met Glu Lys Ser Glu Val
 530 535 540
 Phe Gly Asn Leu Ala Phe His Asn Glu Ser Thr Arg Arg Leu Gln Ala
 545 550 555 560
 Leu Thr Gln Met Asn Pro Lys Trp Arg Pro Glu Pro Cys Ala Phe Gly
 565 570 575
 Ser Lys Gly Ala Glu Met His Tyr Pro Pro Ser Val Arg Tyr Ser Ser
 580 585 590
 Asn Asp Gly Lys Tyr Asn Gly Ala Cys Ser Glu Asn Leu Val Ser Asp
 595 600 605
 Phe Phe Glu His Arg Asn Ile Ala Val Leu Asn Arg Tyr Cys Arg Tyr
 610 615 620
 Phe Tyr Lys Gln Arg Ser Thr Ser Arg Ser Arg Tyr Pro Arg Lys Phe
 625 630 635 640

Arg Tyr Cys Pro Leu Ile Lys Lys His Phe Tyr Ile Pro Ala Asp Thr
 645 650 655
 Asp Asp Val Asp Glu Asn Gly Gln Pro Phe Phe His Ser Pro Glu His
 660 665 670
 Tyr Ile Lys Glu Gln Glu Lys Ile Asp Ala Glu Lys Ala Ala Lys Gly
 675 680 685
 Ile Glu Asn Thr Gly Pro Ser Thr Ser Gly Ser Ser Ala Pro Gly Thr
 690 695 700
 Ile Lys Lys Thr Glu Ala Ser Gln Ser Asp Lys Val Lys Pro Ala Thr
 705 710 715 720
 Glu Asp Glu Leu Pro Pro Ala Arg Leu Pro Asp Asn Val Arg Arg Phe
 725 730 735
 Pro Val Val Gly Val Asp Phe Glu Asn Pro Glu Glu Glu Ser Cys Glu
 740 745 750
 His Lys Thr Val Glu Ser Ile Ala Gly Phe Glu Pro Leu Glu His Leu
 755 760 765
 Phe His Glu Ser Tyr His Pro Asn Thr Ala Gly Asn Met Leu Arg Gln
 770 775 780
 Asp Tyr His Thr Asp Ser Glu Val Lys Ile Ala Glu Gln Glu Ala Lys
 785 790 795 800
 Ala Phe Val Asp Gln Leu Leu Asn Gly Gln Gly Val Leu Gln Glu Phe
 805 810 815
 Met Lys Gln Phe Lys Val Pro Ser Asp Asn Ser Phe Ala Asp Tyr Val
 820 825 830
 Thr Gly Gln Ala Glu Val Phe Lys Ala Gln Ile Ala Leu Leu Glu Gln
 835 840 845
 Ser Glu Asp Phe Gln Arg Val Gln Ala Asn Ala Glu Glu Val Asp Leu
 850 855 860
 Glu His Thr Leu Gly Glu Ala Phe Glu Arg Phe Gly His Val Val Glu
 865 870 875 880
 Glu Ser Asn Gly Ser Ser Lys Asn Pro Lys Ala Leu Lys Thr Arg Glu
 885 890 895
 Gln Met Val Lys Glu Thr Gly Lys Asp Thr Gln Lys Thr Arg Asn His
 900 905 910
 Val Leu Leu His Leu Glu Ala Asn His Arg Val Gln Ile Glu Arg Arg
 915 920 925
 Glu Thr Cys Pro Glu Leu His Pro Glu Asp Lys Ile Pro Arg Ile Ala
 930 935 940
 His Phe Ser Glu Asn Ser Phe Ser Asp Ser Asn Phe Asp Gln Ala Ile
 945 950 955 960
 Tyr Leu

<210> 311
 <211> 3304
 <212> DNA
 <213> Caenorhabditis elegans

<400> 311
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cacagaccga	atcatagcta	tcggttatcc	agcaacagga	atcgaagcga	atttccgtaa	300
ctcaaaagtt	caaactcaac	aatttctgac	caggcggcac	ggaaagggca	acgtgaaggt	360
gtttaacctg	cgcggtggat	actactacga	tgcggataac	ttcgatggaa	atgttatttg	420
cttcgatatg	actgatcatc	atccgccgag	tctcgaatta	atggctccgt	tttgcagaga	480
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aattccatca	caacgacgct	acatttacta	ctaccataag	cttcgtgaac	gtgagctcaa	720
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ataa	3304

<210> 312
 <211> 1642
 <212> DNA
 <213> Caenorhabditis elegans

<400> 312

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taatagtgtc	tccatgtcca	gtgacaatcg	catggaggat	tttaaacgtc	gttttcgtcg	180
aagtggatcg	ttaggaattc	catttgtecc	agaagaagat	gttaaacaac	tcttcacacc	240
aactcgtact	gttcgtcgag	aagcatctat	tcgcgaaggg	gatgaggaag	aaggagtaca	300
aattctcaca	ataattgtca	agtcaagtcg	tgtttcggag	gatatctcaa	aaatgattgc	360
aaacctccct	gatcacactc	gtatcaaaca	tttgagagact	cgtgacagtc	aagatggaag	420
ttccaaaact	atggatgttc	ttctagagat	tgagctcttt	cattatggaa	aacaagaagc	480
aatggatctt	atgagactta	atgggcttga	tgttcatgag	gtgtcatcga	ctattcgtcc	540
aactgcaata	aaagagcaat	atacagagcc	tggatctgat	gatgcgacaa	ccggttctga	600
atggtttcca	aaaagtattt	atgatttgga	tatttggtgca	aaaagagtga	ttatgtatgg	660
agcagggctg	gacgtgatc	atcctggttt	caaagatacc	gagtatcgtc	aacgtcgaat	720
gatgtttgct	gaactggcgc	tcaattacaa	acacgggtgag	ccaattccgc	gaaccgaata	780
tacatcatcc	gaacggaaaa	cttggggaat	tatatataga	aaattgagag	aattgcacaa	840
aaagcacgca	tgcaagcagt	ttcttgataa	ctttgagcta	ctggagagac	attgtggata	900
ctcggaaaaat	aatattccgc	aactagaaga	tatctgcaag	tttttgaaag	caaaaactgg	960
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atategtgtc	ttcttctgca	ctcaatacgt	tcgccatcat	gccgatccat	tttacctcc	1080
agaaccagac	accgttcacg	agctcatggg	tcacatggct	ctattcgtcg	atccagattt	1140
tgctcagttt	tctcaagaga	ttggattagc	ttctcttgga	gcatcagagg	aagatttgaa	1200
gaagcttgca	acactctact	tcttttccat	tgaatttggg	ctctcgtctg	atgacgtgc	1260
cgattctcca	gtaaaagaaa	atggatcaaa	tcataaaaga	tttaaagtat	acggagcagg	1320
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gaaacgtccc	ttcattgttc	gttacaaccc	atacacagaa	agcgtcgaag	ttctcaacaa	1560
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<210> 313
 <211> 532
 <212> PRT
 <213> Caenorhabditis elegans

<400> 313

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Ser	Lys	Lys	Ala	Ala	Gly	Lys	Thr	Met	Ser	Asn	Ser	Val	Ser	Met	Ser
			20					25					30		
Ser	Asp	Asn	Arg	Met	Glu	Asp	Phe	Lys	Arg	Arg	Phe	Arg	Arg	Ser	Gly
		35					40					45			

Ser Leu Gly Ile Pro Phe Val Pro Glu Glu Asp Val Lys Gln Leu Phe
 50 55 60
 Thr Pro Thr Arg Thr Val Arg Arg Glu Ala Ser Ile Arg Glu Gly Asp
 65 70 75 80
 Glu Glu Glu Gly Val Gln Ile Leu Thr Ile Ile Val Lys Ser Ser Arg
 85 90 95
 Val Ser Glu Asp Ile Ser Lys Met Ile Ala Asn Leu Pro Asp His Thr
 100 105 110
 Arg Ile Lys His Leu Glu Thr Arg Asp Ser Gln Asp Gly Ser Ser Lys
 115 120 125
 Thr Met Asp Val Leu Leu Glu Ile Glu Leu Phe His Tyr Gly Lys Gln
 130 135 140
 Glu Ala Met Asp Leu Met Arg Leu Asn Gly Leu Asp Val His Glu Val
 145 150 155 160
 Ser Ser Thr Ile Arg Pro Thr Ala Ile Lys Glu Gln Tyr Thr Glu Pro
 165 170 175
 Gly Ser Asp Asp Ala Thr Thr Gly Ser Glu Trp Phe Pro Lys Ser Ile
 180 185 190
 Tyr Asp Leu Asp Ile Cys Ala Lys Arg Val Ile Met Tyr Gly Ala Gly
 195 200 205
 Leu Asp Ala Asp His Pro Gly Phe Lys Asp Thr Glu Tyr Arg Gln Arg
 210 215 220
 Arg Met Met Phe Ala Glu Leu Ala Leu Asn Tyr Lys His Gly Glu Pro
 225 230 235 240
 Ile Pro Arg Thr Glu Tyr Thr Ser Ser Glu Arg Lys Thr Trp Gly Ile
 245 250 255
 Ile Tyr Arg Lys Leu Arg Glu Leu His Lys Lys His Ala Cys Lys Gln
 260 265 270
 Phe Leu Asp Asn Phe Glu Leu Leu Glu Arg His Cys Gly Tyr Ser Glu
 275 280 285
 Asn Asn Ile Pro Gln Leu Glu Asp Ile Cys Lys Phe Leu Lys Ala Lys
 290 295 300
 Thr Gly Phe Arg Val Arg Pro Val Ala Gly Tyr Leu Ser Ala Arg Asp
 305 310 315 320
 Phe Leu Ala Gly Leu Ala Tyr Arg Val Phe Phe Cys Thr Gln Tyr Val
 325 330 335
 Arg His His Ala Asp Pro Phe Tyr Thr Pro Glu Pro Asp Thr Val His
 340 345 350
 Glu Leu Met Gly His Met Ala Leu Phe Ala Asp Pro Asp Phe Ala Gln
 355 360 365
 Phe Ser Gln Glu Ile Gly Leu Ala Ser Leu Gly Ala Ser Glu Glu Asp
 370 375 380
 Leu Lys Lys Leu Ala Thr Leu Tyr Phe Phe Ser Ile Glu Phe Gly Leu
 385 390 395 400
 Ser Ser Asp Asp Ala Ala Asp Ser Pro Val Lys Glu Asn Gly Ser Asn
 405 410 415
 His Glu Arg Phe Lys Val Tyr Gly Ala Gly Leu Leu Ser Ser Ala Gly
 420 425 430
 Glu Leu Gln His Ala Val Glu Gly Ser Ala Thr Ile Ile Arg Phe Asp
 435 440 445
 Pro Asp Arg Val Val Glu Gln Glu Cys Leu Ile Thr Thr Phe Gln Ser

450 455 460
 Ala Tyr Phe Tyr Thr Arg Asn Phe Glu Glu Ala Gln Gln Lys Leu Arg
 465 470 475 480
 Met Phe Thr Asn Asn Met Lys Arg Pro Phe Ile Val Arg Tyr Asn Pro
 485 490 495
 Tyr Thr Glu Ser Val Glu Val Leu Asn Asn Ser Arg Ser Ile Met Leu
 500 505 510
 Ala Val Asn Ser Leu Arg Ser Asp Ile Asn Leu Leu Ala Gly Ala Leu
 515 520 525
 His Tyr Ile Leu
 530

<210> 314
 <211> 817
 <212> DNA
 <213> *Caenorhabditis elegans*

<400> 314
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 gcatccgcaa tgaagtttca atactactcg aagaaagctg ctggaaagac aatgtctaata 120
 agtgtcaaaa actggattcc gtgttcgccc agtcgccgga tacttatcag ctctgtgattt 180
 cttggcaggt cttgcatatc gtgtcttctt ctgcactcaa tacgttcgcc atcatgccga 240
 tccattttac actccagaac cagacaccgt tcacgagctc atgggtcaca tggctctatt 300
 cgctgatcca gatttttctc agttttctca agagattgga ttagcttctc ttggagcatc 360
 agaggaagat ttgaagaagc ttgcaacact ctacttcttt tccattgaat ttggtctctc 420
 gtctgatgac gctgccgatt ctccagtaaa agaaaatgga tcaaatacatg aaagatttaa 480
 agtatacggg gcaggacttc tgagcagtgct tggcgagttg caacatgccg ttgagggtag 540
 tgcaaccatt attcgttttg atccggatcg tgttggtgag caagaatgtc tcattactac 600
 tttccagtca gcgtatttct atactagaaa ttttgaagag gccagcaga aactcagaat 660
 gttcaccaac aacatgaaac gtcccttcat tgttcggtac aaccataca cagaaagcgt 720
 cgaagtcttc aacaactccc gttccattat gttggcagtg aactctctcc gtcagacat 780
 caacctgctc gccggagctc tccactacat cctgtag 817

<210> 315
 <211> 45
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 315
 Met Asp Ser Leu Phe Gln Met Ala Ser Ala Met Lys Phe Gln Tyr Tyr
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 Ser Lys Lys Ala Ala Gly Lys Thr Met Ser Asn Ser Val Lys Asn Trp
 20 25 30
 Ile Pro Cys Ser Pro Ser Arg Arg Ile Leu Ile Ser Ser
 35 40 45

<210> 316
 <211> 466
 <212> DNA
 <213> *Caenorhabditis elegans*

<400> 316
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 ggggtctggac tgcgacgaga ctcaagcgag tcccgtgct gccgatatcc cctcacagtg 120
 gactttgagg ctttcggctg ggactggatc atcgcaccta agcgctacaa ggccaactac 180
 tgctccggcc agtgggagta catgttcatg caaaaatatc cgcataccca tttggtgcag 240
 caggccaatc caagaggtta tgctgggccc tgttgtagcc ccaccaagat gtccccaatc 300
 aacatgctct acttcaatga caagcagcag attatctacg gcaagatccc tggcatggtg 360
 gtggatcgct gtggctgctc ttaagggtggg ggatagagga tgccctcccc acagaccgta 420
 cccaagacc catagccctg cccaatccac cgctgatcc aaacat 466

<210> 317
 <211> 128
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 317
 Ile Arg His Glu His Gly Ala Ser Ser Pro Arg Glu His Lys Thr Phe
 1 5 10 15
 Pro Ala Glu Pro Gly Ser Gly Leu Arg Arg Asp Ser Ser Glu Ser Arg
 20 25 30
 Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp
 35 40 45
 Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Gln
 50 55 60
 Trp Glu Tyr Met Phe Met Gln Lys Tyr Pro His Thr His Leu Val Gln
 65 70 75 80
 Gln Ala Asn Pro Arg Gly Tyr Ala Gly Pro Cys Cys Thr Pro Thr Lys
 85 90 95
 Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys Gln Gln Ile Ile
 100 105 110
 Tyr Gly Lys Ile Pro Leu Ala Met Val Val Asp Arg Cys Gly Cys Ser
 115 120 125

<210> 318
 <211> 9
 <212> DNA
 <213> *Homo sapiens*

<400> 318
 caaaactaa 9

<210> 319
 <211> 20
 <212> DNA
 <213> *Caenorhabditis elegans*

<400> 319
 ccactatggc cgagatttcc 20

<210> 320
 <211> 44

<212> DNA
<213> Caenorhabditis elegans

<400> 320
ccagtgaaaa gttcttctcc tttcttctc ttctcgaatt cgga

44

<210> 321
<211> 21
<212> DNA
<213> Caenorhabditis elegans

<400> 321
cttctctctc tcgaattcgg c

21

<210> 322
<211> 8
<212> PRT
<213> Caenorhabditis elegans

<400> 322
Gly Arg Lys Gly Phe Pro His Val
1 5

<210> 323
<211> 7
<212> PRT
<213> Caenorhabditis elegans

<220>
<221> VARIANT
<222> (1)...(7)
<223> Xaa = Any Amino Acid

91
<400> 323
Arg Xaa Xaa Ile Xaa Xaa Gly
1 5

<210> 324
<211> 7
<212> PRT
<213> Caenorhabditis elegans or Homo sapiens

<400> 324
Cys Gly Cys Cys Cys Cys Cys
1 5

<210> 325
<211> 79
<212> PRT
<213> Homo sapiens or Caenorhabditis elegans

<400> 325

Val Leu Asp Asp Tyr Gly Arg Val Asp Trp Trp Gly Gly Val Val Met
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20 25 30
Glu Leu Ile Arg Phe Pro Leu Glu Ala Leu Leu Gly Leu Leu Lys Asp
35 40 45
Pro Thr Gln Arg Leu Gly Gly Gly Glu Asp Ala Glu Ile Phe Phe Trp
50 55 60
Tyr Lys Pro Pro Lys Pro Val Ser Glu Thr Asp Thr Tyr Phe Asp
65 70 75

<210> 326

<211> 48

<212> PRT

<213> Homo sapiens or Caenorhabditis elegans

<400> 326

Thr Met Phe Leu Lys Leu Gly Lys Gly Thr Phe Gly Lys Val Ile Leu
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Lys Glu Lys Thr Tyr Ala Lys Ile Leu Lys Lys Val Ile Ala Glu Val
20 25 30
Ala His Thr Leu Thr Glu Asn Arg Val Leu Gln His Pro Phe Leu Thr
35 40 45

<210> 327

<211> 27

<212> DNA

<213> Caenorhabditis elegans

<400> 327

caagcgttga ctcaaatgaa tccaaaa

27

<210> 328

<211> 55

<212> DNA

<213> Caenorhabditis elegans

<400> 328

caagcgttga ctcaatgcgt tgactcaatg cggttgactcg ttgacgaatc caaaa

55